

=&gt; d que 11

L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-542351/APPS

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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:633527 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:174078

TITLE: Preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.

INVENTOR(S): Moir, Donald T.; Xiang, Yibin; Arvanites, Anthony C.; Ali, Syed Masarrat; Geng, Bolin; Ashwell, Mark A.; Orgueira, Hernan Antonio

PATENT ASSIGNEE(S): Genome Therapeutics Corporation, USA; Arqule

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

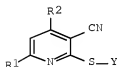
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004064837	A1	20040805	WO 2004-US1327	20040116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
US 20070027190	A1	20070201	US 2006-542351	20060807 <--
PRIORITY APPLN. INFO.:			US 2003-441411P	P 20030117
			WO 2004-US1327	W 20040116

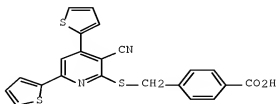
OTHER SOURCE(S): MARPAT 141:174078

ED Entered STN: 06 Aug 2004

GI



I



II

AB Title compds. I [R1, R2 = (un)substituted monocyclic aryl, heteroaryl; Y = X1-X2; X1 = bond, (un)substituted alkylene; X2 = aryl, heteroaryl, cycloaliph.,

etc.] and their pharmaceutically acceptable salts were prepared. For example, condensation-annulation of 1,3-di-2-thienyl-2-propen-1-one and 2-cyanoethanethioamide, followed by 4-(bromomethyl)benzoic acid S-alkylation of the resulting thioxopyridinecarbonitrile (no data provided), afforded claimed thienylpyridinecarbonitrile II. In methicillin-resistant *Staphylococcus aureus* minimal inhibitory concentration (MIC) assays, 14-examples of compds. I exhibited MIC values ranging from 0.75->64 µg/mL, e.g., the MIC value of thienylpyridinecarbonitrile II was 4 µg/mL. Compds. I are claimed useful for the. Of note, compds. I are proposed to inhibit bacterial enoyl-ACP reductase (FabI), a NADH-dependent enoyl [acyl carrier protein] reductase enzyme in the fatty acid biosynthesis pathway.

- IC ICM A61K031-44
- ICS C07D213-84; A61P031-04
- CC 27-16 (Heterocyclic Compounds (One Hetero Atom))
- Section cross-reference(s): 1
- ST thienylpyridinecarbonitrile prepn antibacterial agent fabI inhibition;  
NADH dependent enoyl acyl carrier protein reductase  
thienylpyridinecarbonitrile prepn; methicillin resistant *staphylococcus aureus* thienylpyridinecarbonitrile prepn antibacterial agent
- IT Dysentery  
(bacillary, infection, treatment of; preparation of  
thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI)  
inhibitors.)
- IT Infection  
(bacterial; preparation of thienylpyridinecarbonitriles as bacterial  
enoyl-ACP reductase (FabI) inhibitors.)
- IT Fatty acids, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(biosynthesis; preparation of thienylpyridinecarbonitriles as bacterial  
enoyl-ACP reductase (FabI) inhibitors.)
- IT *Acinetobacter baumannii*  
*Bacillus anthracis*  
*Citrobacter*  
*Enterobacter*  
*Enterococcus faecalis*  
*Enterococcus faecium*  
*Escherichia coli*  
*Francisella tularensis*  
*Haemophilus influenzae*  
*Klebsiella*  
*Listeria monocytogenes*  
*Moraxella catarrhalis*  
*Mycobacterium tuberculosis*  
*Neisseria meningitidis*  
*Proteus mirabilis*  
*Proteus vulgaris*  
*Pseudomonas aeruginosa*  
*Salmonella*  
*Serratia*  
*Staphylococcus aureus*  
*Staphylococcus epidermidis*  
*Stenotrophomonas maltophilia*  
(infection, treatment of; preparation of thienylpyridinecarbonitriles as  
bacterial enoyl-ACP reductase (FabI) inhibitors.)
- IT Antibacterial agents  
Human  
(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP  
reductase (FabI) inhibitors.)
- IT 37251-08-4D, Enoyl-acyl carrier protein reductase, fabI protein  
RL: BSU (Biological study, unclassified); BIOL (Biological study)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT 296797-06-3P 296798-15-7P 300844-13-7P 300844-14-8P 328282-01-5P  
 340808-61-9P 354545-70-3P 354555-67-2P 445266-27-3P 445383-75-5P  
 496018-68-9P 733052-04-5P 733052-05-6P 733052-06-7P 733052-07-8P  
 733052-08-9P 733052-09-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT 2309-48-0 6232-88-8 7357-70-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT 243987-05-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 2 SEA FILE=WPIX ABB=ON PLU=ON US2006-542351/APPS

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YOU HAVE REQUESTED DATA FROM FILE 'WPIX' - CONTINUE? (Y)/N:y

L2 ANSWER 1 OF 2 WPIX COPYRIGHT 2008 THOMSON REUTERS on STN

ACCESSION NUMBER: 2008-E22122 [29] WPIX

DOC. NO. NON-CPI: N2008-330338 [29]

TITLE: Starter box for a remote-control toy car has two  
 carriages supported on track assemblies mounted on two  
 pivoting racks with top pivot axles, columns, links  
 having pivot holes, and bottom shanks firmly fastened to  
 top axle holes of two bases

DERWENT CLASS: Q51; W04

INVENTOR: LU K

PATENT ASSIGNEE: (LUKK-I) LU K

COUNTRY COUNT: 1

# PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA PG	MAIN IPC
US 20080078348	A1	20080403	(200829)* EN	20[5]

# APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 20080078348	A1	<u>US 2006-542351</u>	<u>20061002</u>

PRIORITY APPLN. INFO: US 2006-542351 20061002

## INT. PATENT CLASSIF.:

IPC ORIGINAL: F02N0017-00 [I,A]; F02N0017-00 [I,C]  
 USCLASS NCLM: 123/179.100  
 BASIC ABSTRACT:

US 20080078348 A1 UPAB: 20080504

NOVELTY - Two pivoting master racks (1,1A) have top pivot axles, columns, links (14) with pivot holes and mouthpieces, and bottom shanks. Two bases (2) have top axle holes. Racks and bases are firmly secured together. Two lock screws (15) and two pairs of track assemblies are mounted on the racks. Two carriages are supported on track assemblies. Each carriage has a longitudinal bottom plate and a transverse top plate having two transverse sliding slots aligned in a line. Four retainers (45) are coupled to the top plates and movable along the sliding slots for securing a remote-control toy car.

USE - A starter box for a remote-control toy car.

ADVANTAGE - The box facilitates set-up and is easy to carry. It can be detached and flattened to reduce the size for carrying. The detachable starter box allows adjustment in height, length, and width to secure any of a variety of remote-control toy cars firmly in position for starting.

DESCRIPTION OF DRAWINGS - The drawing shows an elevation view of a starter box.

Master racks (1,1A)  
 Bases (2)  
 Links (14)  
 Lock screws (15)  
 Retainers (45)

MANUAL CODE: EPI: W04-X03E1C; W04-X03E8

AN 2008-E22122 [29] WPIX

DC Q51; W04

IPCI F02N0017-00 [I,A]; F02N0017-00 [I,C]

NCL NCLM 123/179.100

MC EPI: W04-X03E1C; W04-X03E8

L2 ANSWER 2 OF 2 WPIX COPYRIGHT 2008 THOMSON REUTERS on STN

ACCESSION NUMBER: 2004-580648 [56] WPIX

DOC. NO. CPI: C2004-211643 [56]

TITLE: Use of thiol pyridine derivatives and pyridothione derivatives for the treatment of bacterial infections

DERWENT CLASS: B03

INVENTOR: ALI S M; ARVANITES A C; ASHWELL M A; GENG B; MOIR D T;  
 ORGUEIRA H A; XIANG Y; KAPLAN A P

PATENT ASSIGNEE: (ARQU-N) ARQULE; (GENO-N) GENOME THERAPEUTICS CORP;  
 (ALIS-I) ALI S M; (ARVA-I) ARVANITES A C; (ASHW-I)  
 ASHWELL M A; (GENG-I) GENG B; (KAPL-I) KAPLAN A P;  
 (MOIR-I) MOIR D T; (ORGU-I) ORGUEIRA H A; (XIAN-I) XIANG  
 Y

COUNTRY COUNT: 106

## PATENT INFORMATION:

PATENT NO	KIND DATE	WEEK	LA	PG	MAIN IPC
WO 2004064837	A1 20040805	(200456)*	EN	54[2]	
US 20070027190	A1 20070201	(200712)	EN		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2004064837	A1	WO 2004-US1327	20040116

US 20070027190 A1 Provisional  
 US 20070027190 A1  
 US 20070027190 A1

US 2003-441411P 20030117  
 WO 2004-US1327 20040116  
US 2006-542351 20060807

PRIORITY APPLN. INFO: US 2003-441411P 20030117  
US 2006-542351 20060807

## INT. PATENT CLASSIF.:

IPC ORIGINAL: A61K0031-4412 [I,A]; A61K0031-4412 [I,C]; A61K0031-4427 [I,C]; A61K0031-4436 [I,A]; A61K0031-4439 [I,A]

IPC RECLASSIF.: A61K0031-44 [I,A]; A61K0031-44 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; C07D0213-00 [I,C]; C07D0213-85 [I,A]; C07D0405-00 [I,C]; C07D0405-04 [I,A]; C07D0409-00 [I,C]; C07D0409-04 [I,A]; C07D0409-14 [I,A]

ECLA: A61K0031-44; C07D0213-85; C07D0405-04+307B+213; C07D0409-04+333B+213; C07D0409-14+333B+333B+213

USCLASS NCLM: 514/341.000  
 NCLS: 514/342.000; 514/344.000

## BASIC ABSTRACT:

WO 2004064837 A1 UPAB: 20050531

NOVELTY - Treatment of bacterial infection comprises administration of pyridothione derivatives (A) and/or thiol pyridine derivatives (B).

DETAILED DESCRIPTION - Treatment of bacterial infection comprises administration of pyridothione derivatives of formula (A) and/or thiol pyridine derivatives of formula (B) and their salts. In formula A:

R1, R2 = monocyclic aryl or heteroaryl groups, both optionally substituted by triazole, tetrazole or one or more acyclic substituents; and

R3 = H or optionally substituted 1-8C aliphatic, 3-8C cycloaliphatic or (hetero) aryl group.

In formula B:

R1, R2 = monocyclic (hetero) aryl group, optionally substituted by triazole, tetrazole or one or more acyclic substituents;

X1 = 1-3C alkylene chain (optionally substituted by 1-4C alkyl, triazole, tetrazole or an acidic group); either

X2 = (hetero) aryl or 3-8C cycloaliphatic ring (optionally substituted by triazole, tetrazole or acyclic substituents); or

X2 = triazole, tetrazole, an acidic group, -(CO)NRaRb, (CNH)NRaRb or (CS)NRaRb; either

Ra, Rb = H or optionally substituted (hetero)aryl, 3-8C cycloaliphatic or 1-4C alkyl; or

NRaRb = optionally substituted non-aromatic heterocyclic group.

ACTIVITY - Antibacterial.

MECHANISM OF ACTION - FabI inhibitor. (A) and (B) were assessed for fabI inhibiting activity in *Staphylococcus aureus*. The median inhibitory concentration of 4-(3-cyano-4,6-di-thiophen-2-yl-pyridin-2-ylsulfanylmethyl)-benzoic acid was 3 microM.

USE - (A) and (B) are useful for the treatment of infections caused by bacteria expressing a fabI protein; the bacterial infection is caused by *Acinetobacter baumannii*, *Bacillus anthracis*, *Citrobacter* sp., *Escherichia coli*, *Enterobacter* sp., *Enterococcus faecalis*, *Enterococcus faecium*, *Francisella tularensis*, *Haemophilus influenzae*, *Klebsiella* sp., *Listeria monocytogenes*, *Moraxella catarrhalis*, *Mycobacterium tuberculosis*, *Neisseria meningitidis*, *Proteus mirabilis*, *Proteus vulgaris*, *Pseudomonas aeruginosa*, *Salmonella* sp., *Serratia* sp., *Shigella* sp., *Stenotrophomonas maltophilia*, *Staphylococcus aureus* or *Staphylococcus epidermidis* (claimed). MANUAL CODE: CPI: B07-A01; B07-B01; B07-D04C; B14-A01A; B14-A01B;

B14-A01B1; B14-A01B4

AN 2004-580648 [56] WPIX  
 DC B03

IPC1 A61K0031-4412 [I,A]; A61K0031-4412 [I,C]; A61K0031-4427 [I,C]; A61K0031-4436 [I,A]; A61K0031-4439 [I,A]

IPCR A61K0031-44 [I,A]; A61K0031-44 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; C07D0213-00 [I,C]; C07D0213-85 [I,A]; C07D0405-00 [I,C]; C07D0405-04 [I,A]; C07D0409-00 [I,C]; C07D0409-04 [I,A]; C07D0409-14 [I,A]

EPC A61K0031-44; C07D0213-85; C07D0405-04+307B+213; C07D0409-04+333B+213; C07D0409-14+333B+333B+213

NCL NCLM 514/341.000  
NCLS 514/342.000; 514/344.000

IT UPIT 20050531  
796334-CL 796334-USE; 942682-CL 942682-USE; 942686-CL 942686-USE;  
942687-CL 942687-USE; 796329-CL 796329-USE; 796331-CL 796331-USE;  
942690-CL 942690-USE; 942695-CL 942695-USE; 942696-CL 942696-USE;  
942701-CL 942701-USE; 942702-CL 942702-USE; 942703-CL 942703-USE;  
942706-CL 942706-USE; 942707-CL 942707-USE; 942708-CL 942708-USE;  
0137-70501-CL 0137-70501-USE; 0137-70502-CL 0137-70502-USE

MC CPI: B07-A01; B07-B01; B07-D04C; B14-A01A; B14-A01B; B14-A01B1; B14-A01B4

CMC UPB 20050531

M2 \*01\* F012 F013 F014 F016 F019 F211 F299 F431 G013 G100 H5 H592 H9 J0  
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M373 M391 M413 M510 M523 M531 M540 M781 P220 P232 M905 M904  
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DCR: 796334-K 796334-T 796334-U

M2 \*02\* F012 F013 F014 F016 F019 F211 F299 F431 G010 G100 H5 H592 H9 J0  
J011 J1 J171 K0 L1 L142 L943 M1 M116 M119 M280 M311 M321 M343  
M349 M371 M391 M413 M510 M523 M531 M540 M781 P220 P232 M905  
M904  
DCN: RAF30J-K RAF30J-T RAF30J-U  
DCR: 942682-K 942682-T 942682-U

M2 \*03\* F012 F013 F014 F016 F019 F211 F431 G013 G015 G100 H5 H542 H592  
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M210 M211 M272 M282 M311 M321 M342 M349 M381 M391 M413 M510 M522  
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M2 \*04\* F012 F013 F014 F016 F019 F211 F431 G013 G100 H5 H592 H6 H601  
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M232 M273 M281 M311 M321 M342 M349 M381 M391 M413 M510 M522 M531  
M540 M781 P220 P232 M905 M904  
DCN: RAF30O-K RAF30O-T RAF30O-U  
DCR: 942687-K 942687-T 942687-U

M2 \*05\* F012 F013 F014 F016 F019 F211 F299 F431 G013 G100 H5 H592 H9 J0  
J011 J1 J131 K0 L1 L142 L943 M1 M116 M119 M280 M312 M321 M332  
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DCN: RAF30Q-K RAF30Q-T RAF30Q-U  
DCR: 796329-K 796329-T 796329-U

M2 \*06\* F012 F013 F014 F016 F019 F211 F299 F431 G013 G100 H5 H592 H9 J0  
J011 J1 J131 K0 L1 L142 L943 M1 M116 M119 M280 M312 M321 M331  
M340 M342 M373 M391 M413 M510 M523 M531 M540 M781 P220 P232  
M905 M904  
DCN: RAF30S-K RAF30S-T RAF30S-U  
DCR: 796331-K 796331-T 796331-U

M2 \*07\* F012 F013 F014 F016 F019 F211 F299 F431 G012 G100 H5 H592 H9 J0  
J011 J1 J131 K0 L1 L142 L943 M1 M116 M119 M280 M311 M321 M342  
M373 M391 M413 M510 M523 M531 M540 M781 P220 P232 M905 M904  
DCN: RAF30T-K RAF30T-T RAF30T-U  
DCR: 942690-K 942690-T 942690-U

M2 \*08\* F012 F013 F014 F016 F019 F211 F299 F431 G013 G100 H5 H592 H9 J0  
J011 J1 J171 K0 L1 L142 L943 M1 M116 M119 M280 M311 M322 M342  
M372 M373 M391 M413 M510 M523 M531 M540 M781 P220 P232 M905  
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DCN: RAF30Y-K RAF30Y-T RAF30Y-U  
 DCR: 942695-K 942695-T 942695-U

M2 \*09\*  
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 M272 M281 M311 M321 M342 M373 M391 M413 M510 M522 M532 M540 M781  
 P220 P232 M905 M904

DCN: RAF30Z-K RAF30Z-T RAF30Z-U  
 DCR: 942696-K 942696-T 942696-U

M2 \*10\*  
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DCN: RAF3P4-K RAF3P4-T RAF3P4-U  
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 J012 J3 J342 K0 L1 L142 L943 M1 M113 M116 M210 M211 M262 M281  
 M311 M321 M342 M349 M381 M391 M413 M510 M522 M532 M540 M781 P220  
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DCN: RAF3P5-K RAF3P5-T RAF3P5-U  
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M2 \*12\*  
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DCN: RAF3P6-K RAF3P6-T RAF3P6-U  
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M2 \*13\*  
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DCN: RAF3P9-K RAF3P9-T RAF3P9-U  
 DCR: 942706-K 942706-T 942706-U

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DCN: RAF3PA-K RAF3PA-T RAF3PA-U  
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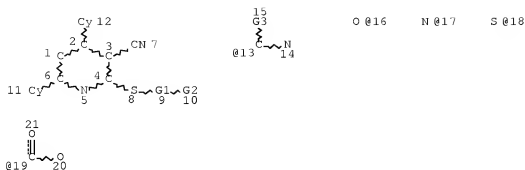
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 M344 M349 M353 M362 M371 M372 M373 M381 M391 M413 M510 M521 M522

10/542,351

M523 M530 M531 M532 M533 M540 M781 P220 P232 M905 M904  
MCN: 0137-70502-K 0137-70502-T 0137-70502-U



=> => d que stat l14  
L12 STR



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VAR G3=16/17/18  
NODE ATTRIBUTES:  
NSPEC IS RC AT 14  
CONNECT IS E1 RC AT 16  
CONNECT IS E1 RC AT 17  
CONNECT IS E1 RC AT 18  
DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY UNS AT 11  
GGCAT IS MCY UNS AT 12  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE  
L14 6844 SEA FILE=REGISTRY SSS FUL L12

100.0% PROCESSED 50841 ITERATIONS 6844 ANSWERS  
SEARCH TIME: 00.00.04

=> d que nos l40  
L1 1 SEA FILE=HCAPLUS ABB=ON PLU=ON US2006-542351/APPS  
L3 TRANSFER PLU=ON L1 1- RN : 22 TERMS  
L4 22 SEA FILE=REGISTRY ABB=ON PLU=ON L3  
L12 STR  
L14 6844 SEA FILE=REGISTRY SSS FUL L12  
L15 17 SEA FILE=REGISTRY ABB=ON PLU=ON L4 AND L14  
L17 QUE ABB=ON PLU=ON MOIR, D?/AU  
L18 QUE ABB=ON PLU=ON XIANG, Y?/AU  
L19 QUE ABB=ON PLU=ON ARVANITES, A?/AU  
L20 QUE ABB=ON PLU=ON ARVANITES, T?/AU  
L21 QUE ABB=ON PLU=ON ALI, S?/AU  
L22 QUE ABB=ON PLU=ON GENG, B?/AU  
L23 QUE ABB=ON PLU=ON ASHWELL, M?/AU  
L24 QUE ABB=ON PLU=ON ORGUEIRA, H?/AU  
L25 QUE ABB=ON PLU=ON KAPLAN, A?/AU

L26 QUE ABB=ON PLU=ON (OSCIENT OR ARQULE)/CS,SO,PA  
 L27 QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
 <2004 OR REVIEW/DT  
 L28 QUE ABB=ON PLU=ON INFECTION+PFT,OLD,NEW,NT/CT(L)BACTER  
 ?  
 L29 QUE ABB=ON PLU=ON "ANTIBACTERIAL AGENTS"+PFT,OLD,NEW/C  
 T  
 L30 QUE ABB=ON PLU=ON ANTIINFECT? OR (ANTI(1W)INFECT?)  
 L31 QUE ABB=ON PLU=ON ANTIBACTER? OR ANTIBIOT? OR ANTIMICR  
 OB? OR (ANTI(1W)(BACTER? OR BIOT? OR MICROB?))  
 L32 QUE ABB=ON PLU=ON (A61P0031-04 OR A61P0031-06 OR A61P0  
 031-08)/IPC  
 L33 67 SEA FILE=HCAPLUS ABB=ON PLU=ON L14  
 L34 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L15  
 L35 67 SEA FILE=HCAPLUS ABB=ON PLU=ON (L33 OR L34)  
 L36 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L35 AND (L28 OR L29 OR L30 OR  
 L31 OR L32)  
 L37 67 SEA FILE=HCAPLUS ABB=ON PLU=ON (L33 OR L34 OR L35 OR L36)  
 L38 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 AND (L17 OR L18 OR L19 OR  
 L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR L26)  
 L39 65 SEA FILE=HCAPLUS ABB=ON PLU=ON L37 NOT L38  
 L40 49 SEA FILE=HCAPLUS ABB=ON PLU=ON L39 AND L27

=> d his 146

(FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 16:51:16 ON 18 SEP 2008)

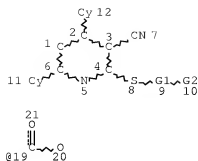
L46 3 S L45 AND L27

=> d que nos 146

L12 STR  
 L14 6844 SEA FILE=REGISTRY SSS FUL L12  
 L17 QUE ABB=ON PLU=ON MOIR, D?/AU  
 L18 QUE ABB=ON PLU=ON XIANG, Y?/AU  
 L19 QUE ABB=ON PLU=ON ARVANITES, A?/AU  
 L20 QUE ABB=ON PLU=ON ARVANITES, T?/AU  
 L21 QUE ABB=ON PLU=ON ALI, S?/AU  
 L22 QUE ABB=ON PLU=ON GENG, B?/AU  
 L23 QUE ABB=ON PLU=ON ASHWELL, M?/AU  
 L24 QUE ABB=ON PLU=ON ORGUEIRA, H?/AU  
 L25 QUE ABB=ON PLU=ON KAPLAN, A?/AU  
 L26 QUE ABB=ON PLU=ON (OSCIENT OR ARQULE)/CS,SO,PA  
 L27 QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY  
 <2004 OR REVIEW/DT  
 L42 27 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND (USPATFULL OR USPAT2  
 OR USPATOLD)/LC  
 L43 6 SEA L42  
 L44 1 SEA L43 AND (L17 OR L18 OR L19 OR L20 OR L21 OR L22 OR L23 OR  
 L24 OR L25 OR L26)  
 L45 5 SEA L43 NOT L44  
 L46 3 SEA L45 AND L27

=> d que 147

L12 STR



O @16 N @17 S @18

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REP G1=(0-4) C
VAR G2=CY/19/13
VAR G3=16/17/18
NODE ATTRIBUTES:
NSPEC   IS RC      AT  14
CONNECT IS E1  RC AT  16
CONNECT IS E1  RC AT  17
CONNECT IS E1  RC AT  18
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY  UNS AT  11
GGCAT   IS MCY  UNS AT  12
DEFAULT ECLEVEL IS LIMITED

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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

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STEREO ATTRIBUTES: NONE

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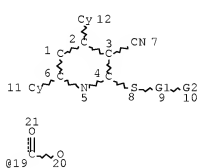
L14      6844 SEA FILE=REGISTRY SSS FUL L12
L47      0 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND (MEDLINE OR BIOSIS
          OR EMBASE OR CABA OR BIOTECHNO OR DRUGU OR VETU)/LC

```

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=> d que stat 150
L12      STR

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O @16 N @17 S @18

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REP G1=(0-4) C
VAR G2=CY/19/13
VAR G3=16/17/18

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## NODE ATTRIBUTES:

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NSPEC   IS RC      AT   14
CONNECT IS E1      RC AT   16
CONNECT IS E1      RC AT   17
CONNECT IS E1      RC AT   18
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY     UNS AT   11
GGCAT   IS MCY     UNS AT   12
DEFAULT ECLEVEL IS LIMITED

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## GRAPH ATTRIBUTES:

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

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## STEREO ATTRIBUTES: NONE

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L50          26 SEA FILE=WPIX SSS FUL L12

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100.0% PROCESSED      277 ITERATIONS

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26 ANSWERS

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SEARCH TIME: 00.00.03

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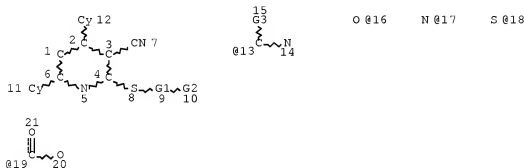
=> d que 156

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L2          2 SEA FILE=WPIX ABB=ON PLU=ON US2006-542351/APPS
L12         STR

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REP G1=(0-4) C

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VAR G2=CY/19/13

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VAR G3=16/17/18

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## NODE ATTRIBUTES:

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NSPEC   IS RC      AT   14
CONNECT IS E1      RC AT   16
CONNECT IS E1      RC AT   17
CONNECT IS E1      RC AT   18
DEFAULT MLEVEL IS ATOM
GGCAT   IS MCY     UNS AT   11
GGCAT   IS MCY     UNS AT   12
DEFAULT ECLEVEL IS LIMITED

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## GRAPH ATTRIBUTES:

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

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## STEREO ATTRIBUTES: NONE

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L17          QUE ABB=ON PLU=ON MOIR, D?/AU

```

```

L18      QUE ABB=ON   PLU=ON   XIANG, Y?/AU
L19      QUE ABB=ON   PLU=ON   ARVANITES, A?/AU
L20      QUE ABB=ON   PLU=ON   ARVANITES, T?/AU
L21      QUE ABB=ON   PLU=ON   ALI, S?/AU
L22      QUE ABB=ON   PLU=ON   GENG, B?/AU
L23      QUE ABB=ON   PLU=ON   ASHWELL, M?/AU
L24      QUE ABB=ON   PLU=ON   ORGUEIRA, H?/AU
L25      QUE ABB=ON   PLU=ON   KAPLAN, A?/AU
L26      QUE ABB=ON   PLU=ON   (OSCIENT OR ARQULE)/CS,SO,PA
L27      QUE ABB=ON   PLU=ON   AY<2004 OR PY<2004 OR PRY<2004 OR MY
        <2004 OR REVIEW/DT
L50      26 SEA FILE=WPIX SSS FUL L12
L51      7 SEA FILE=WPIX ABB=ON PLU=ON (RABM4F/DCN OR RAF30D/DCN OR
        RAF30J/DCN OR RAF3ON/DCN OR RAF30O/DCN OR RAF30Q/DCN OR
        RAF3OS/DCN OR RAF3OT/DCN OR RAF3OY/DCN OR RAF3OZ/DCN OR
        RAF3PA/DCN OR RAF3PB/DCN OR RAF3P4/DCN OR RAF3P5/DCN OR
        RAF3P6/DCN OR RAF3P9/DCN OR RAI1QS/DCN OR RAOHFY/DCN OR
        RAOHFZ/DCN OR RAOHG0/DCN OR RAOHG1/DCN OR RAOHG2/DCN OR
        RAOHG3/DCN OR RAOHG4/DCN OR RAR23T/DCN OR RAVPWX/DCN) OR
        L50/DCR
L52      1 SEA FILE=WPIX ABB=ON PLU=ON L51 AND (L17 OR L18 OR L19 OR
        L20 OR L21 OR L22 OR L23 OR L24 OR L25 OR L26)
L53      1 SEA FILE=WPIX ABB=ON PLU=ON L52 AND L2
L54      1 SEA FILE=WPIX ABB=ON PLU=ON (L52 OR L53)
L55      6 SEA FILE=WPIX ABB=ON PLU=ON L51 NOT L54
L56      2 SEA FILE=WPIX ABB=ON PLU=ON L55 AND L27

```

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=> dup rem 140 146 156
FILE 'HCAPLUS' ENTERED AT 17:03:28 ON 18 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPATFULL' ENTERED AT 17:03:28 ON 18 SEP 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIX' ENTERED AT 17:03:28 ON 18 SEP 2008
COPYRIGHT (C) 2008 THOMSON REUTERS
PROCESSING COMPLETED FOR L40
PROCESSING COMPLETED FOR L46
PROCESSING COMPLETED FOR L56
L57      51 DUP REM L40 L46 L56 (3 DUPLICATES REMOVED)
        ANSWERS '1-49' FROM FILE HCAPLUS
        ANSWERS '50-51' FROM FILE USPATFULL

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=> file stnguide
FILE 'STNGUIDE' ENTERED AT 17:03:50 ON 18 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Sep 12, 2008 (20080912/UP).

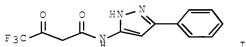
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=> d ibib ed abs hitind hitstr 1-25

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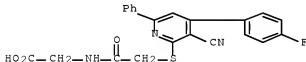
L57 ANSWER 1 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 2005:453800 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:7706  
 TITLE: Pyrazole and other heterocyclics preparation for treating conditions associated with an Edg-4 receptor  
 INVENTOR(S): Solow-Cordero, David; Shankar, Geetha; Spencer, Juliet; Gluchowski, Charles  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 67 pp., Cont.-in-part of U.S. Ser. No. 347,182, abandoned.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050113283	A1	20050526	US 2003-390429	20030314 <--
PRIORITY APPLN. INFO.:			US 2002-350445P	P 20020118 <--
			US 2003-438996P	P 20030110 <--
			US 2003-440328P	P 20030116 <--
			US 2003-440329P	P 20030116 <--
			US 2003-440331P	P 20030116 <--
			US 2003-440332P	P 20030116 <--
			US 2003-440334P	P 20030116 <--
			US 2003-440335P	P 20030116 <--
			US 2003-440345P	P 20030116 <--
			US 2003-440346P	P 20030116 <--
			US 2003-440347P	P 20030116 <--
			US 2003-347182	B2 20030121 <--
OTHER SOURCE(S):		CASREACT 143:7706; MARPAT 143:7706		
ED	Entered	STN: 27 May 2005		
GI				



AB The present invention provides a method of modulating an Edg-4 receptor mediated biol. activity in a cell. A cell expressing the Edg-4 receptor is contacted with a modulator of an Edg-4 receptor sufficient to modulate the Edg-4 receptor mediated biol. activity. In another aspect, the present invention provides a method for modulating an Edg-4 receptor mediated biol. activity in a subject. E.g., I was prepared from Et 4,4,4-trifluoroacetoacetate and 5-phenyl-1H-pyrazol-3-ylamine. I and other derivs. were tested for inhibition of the Edg-4 receptor and other pharmacol. tests such as proliferation, IL-8 and VEGF assays.

IC ICM A61K031-00  
 INCL 514001000  
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1  
 IT 49843-94-9P 90212-73-0P 93103-19-6P 136382-28-0P 292076-38-1P  
 300818-19-3P 304650-31-5P, 3-(2,6-Dichlorophenyl)-6-trifluoromethyl-  
 [1,2,4]triazolo[4,3-a]pyridine 311799-07-2P, 3-(2-Chloro-6-fluorophenyl)-  
 6-trifluoromethyl-[1,2,4]triazolo[4,3-a]pyridine 312519-16-7P,  
 3-(2,3-Dichlorophenyl)-6-trifluoromethyl-[1,2,4]triazolo[4,3-a]pyridine  
 312594-43-7P 334498-72-5P, 1-(2,6-Dichlorophenyl)-6,7-dimethoxy-1,4-  
 dihydro-2H-isoquinolin-3-one 337349-59-4P 337469-26-8P 337498-14-3P  
 353253-35-7P ~~353463-50-0P~~ 400064-03-1P 569655-94-3P  
 569655-98-7P 569656-08-2P, N-[5-(3,4-Dichlorophenyl)-1H-pyrazol-3-yl]-  
 4,4,4-trifluoro-3-oxobutyramide 569656-10-6P 569656-11-7P  
 569656-12-8P 569656-13-9P 569656-14-0P 569656-15-1P 569656-17-3P  
 569656-18-4P 569656-19-5P 569656-20-8P 569656-21-9P 709635-53-0P  
 852310-99-7P, 4,4,4-Trifluoro-N-[5-(4-methoxyphenyl)-1H-pyrazol-3-yl]-3-  
 oxo-butyramide 852311-00-3P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (pyrazole and other heterocyclics preparation for treating conditions  
 associated with an Edg-4 receptor)  
 IT ~~353463-50-0P~~  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
 (Uses)  
 (pyrazole and other heterocyclics preparation for treating conditions  
 associated with an Edg-4 receptor)  
 RN 353463-50-0 HCAPLUS  
 CN Glycine, N-[[[3-cyano-4-(4-fluorophenyl)-6-phenyl-2-pyridinyl]thio]acetyl]-  
 (9CI) (CA INDEX NAME)



L57 ANSWER 2 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 2  
 ACCESSION NUMBER: 2003:591307 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 139:143997  
 TITLE: Methods using Edg receptor modulators for the  
 treatment of Edg receptor-associated conditions  
 INVENTOR(S): Shankar, Geetha; Solow-Cordero, David; Spencer, Juliet  
 V.; Gluchowski, Charles  
 PATENT ASSIGNEE(S): Ceretek LLC, USA  
 SOURCE: PCT Int. Appl., 293 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2003062392 A2 20030731 WO 2003-US1881 20030121 <--  
 WO 2003062392 A3 20050120

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2473740 A1 20030731 CA 2003-2473740 20030121 <--  
 AU 2003214873 A1 20030902 AU 2003-214873 20030121 <--  
 EP 1513522 A2 20050316 EP 2003-710713 20030121 <--

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

JP 2005519915 T 20050707 JP 2003-562260 20030121 <--  
 US 20050261298 A1 20051124 US 2003-390428 20030314 <--  
 PRIORITY APPLN. INFO.: US 2002-350445P P 20020118 <--  
 US 2002-350446P P 20020118 <--  
 US 2002-350447P P 20020118 <--  
 US 2002-350448P P 20020118 <--  
 WO 2003-US1881 W 20030121 <--  
 US 2003-352579 B2 20030127 <--

OTHER SOURCE(S): MARPAT 139:143997

ED Entered STN: 01 Aug 2003

AB The invention provides a method of modulating an Edg-2, Edg-3, Ed-4 or Edg7 receptor-mediated biol. activity in a cell. A cell expressing the Edg-2, Edg-3, Ed-4 or Edg 7 receptor is contacted with a modulator of the Edg-2, Edg-3, Ed-4 or Edg 7 receptor sufficient to modulate receptor mediated biol. activity. In another aspect, the present invention provides a method for modulating an Edg-2, Edg-3, Ed-4 or Edg-7 receptor mediated biol. in a subject. A therapeutically effective amount of a modulator of the Edg-2, Edg-3, Ed-4 or Edg7 receptor is administered to the subject. Preparation of compds., e.g. 4,4,4-trifluoro-3-oxo-N-(5-phenyl-2H-pyrazol-3-yl)butyramide, is described.

IC ICM C12N

CC 1-12 (Pharmacology)

Section cross-reference(s): 28

IT 49843-94-9 90212-73-0 107235-67-6 136382-28-0 171286-07-0  
 177360-28-0 292076-38-1 306764-68-1 309282-30-2 311773-65-6  
 312594-43-7 321679-76-9 322662-05-5 327167-87-3 329350-38-1  
 330630-42-7 331274-84-1 332161-39-4 337349-59-4 337469-26-8  
 337498-14-3 346699-98-7 ~~353463-50-0~~ 353793-15-4  
 364051-15-0 383164-60-1 389079-78-1 400064-03-1 569655-97-6  
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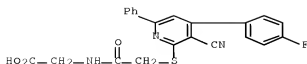
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Edg receptor modulators for treatment of Edg receptor-associated conditions)

IT ~~353463-50-0~~  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Edg receptor modulators for treatment of Edg receptor-associated conditions)

RN 353463-50-0 HCAPLUS

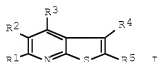
CN Glycine, N-[[[3-cyano-4-(4-fluorophenyl)-6-phenyl-2-pyridinyl]thio]acetyl]- (9CI) (CA INDEX NAME)





L57 ANSWER 3 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:632264 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 143:146724  
 TITLE: Thienopyridine compounds as IκB kinase inhibitors  
 INVENTOR(S): Horiguchi, Yoshiaki; Matsumoto, Takahiro; Hosono, Hiroshi; Kawamoto, Tomohiro  
 PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 122 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005194198	A	20050721	JP 2003-435023	20031226 <--
PRIORITY APPLN. INFO.:			JP 2003-435023	20031226 <--
OTHER SOURCE(S):	MARPAT	143:146724		
ED Entered STN:	21 Jul 2005			
GI				



AB The invention provides thienopyridine compds. I (R1, R2, R3, R4 = H, substituent; R5 = substituent) or their salts or prodrugs as IκB kinase inhibitors for treatment of diabetes and related disease. For example, 3-amino-6-(4-aminopiperidin-1-yl)-4-(2-furyl)thieno[2,3-b]pyridine-2-carboxamide was prepared, and examined for its inhibitory effect on IκB kinase, TNFα, and NIK transcription in vitro. Also, a capsule containing 3-amino-4-(3-furyl)6-piperidin-1-ylthieno[2,3-b]pyridine-2-carboxamide 30 mg/capsule was formulated.

IC ICM A61K031-4365  
 ICS A61K031-444; A61K031-4545; A61K031-4725; A61K031-496; A61K031-5377; A61K031-55; A61K031-551; A61P003-04; A61P003-10; A61P009-10; A61P011-00; A61P017-00; A61P019-02; A61P029-00; A61P031-04; A61P035-00; A61P037-02; A61P037-06; A61P037-08

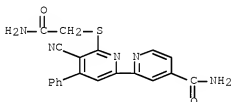
CC 1-12 (Pharmacology)  
 Section cross-reference(s): 28, 63

IT 5275-12-7P 5447-87-0P 6337-70-8P 10432-44-7P 13565-44-1P

14313-09-8P 16806-88-5P 20668-00-2P 20890-12-4P 20890-14-6P  
 20890-16-8P 22966-05-8P 22966-06-9P 22966-19-4P 22966-22-9P  
 22966-24-1P 22966-25-2P 22966-26-3P 24721-24-2P 39511-11-0P  
 39511-12-1P 40524-62-7P 41162-19-0P, (2-Oxo-4-phenylbutyl)phosphonic  
 acid dimethyl ester 53940-02-6P 53940-08-2P 53940-12-8P  
 62737-71-7P 72758-68-0P 85197-94-0P 90811-67-9P 122248-91-3P  
 123293-65-2P 144017-76-5P 144017-77-6P 148900-66-7P 168027-21-2P  
 177947-96-5P 189442-78-2P 201991-24-4P 206989-61-9P,  
 4-Acetylpiperidine-1-carboxylic acid tert-butyl ester 211310-10-0P  
 343571-17-5P 671182-12-0P 858643-90-0P 858643-91-1P 858643-92-2P  
 858643-93-3P 858643-94-4P 858643-95-5P 858643-96-6P 858643-97-7P  
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 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of thienopyridine compds. as IB kinase inhibitors)

IT 858644-17-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of thienopyridine compds. as IB kinase inhibitors)  
 RN 858644-17-4 HCAPLUS  
 CN [2,2'-Bipyridine]-4-carboxamide, 6'-[(2-amino-2-oxoethyl)thio]-5'-cyano-4'-  
 phenyl- (CA INDEX NAME)



L57 ANSWER 4 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1016002 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 142:6311

TITLE: A preparation of benzamide derivatives, useful as  
 glyoxalase inhibitors

INVENTOR(S): Ashton, Mark; Davidson, Alan; Thomas, Russell;  
 Whittaker, Mark

PATENT ASSIGNEE(S): Chroma Therapeutics Limited, UK

SOURCE: PCT Int. Appl., 77 pp.

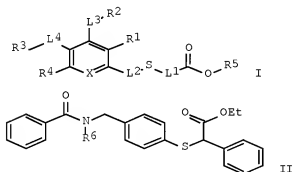
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

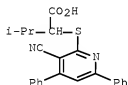
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004101506	A1	20041125	WO 2004-GB2101	20040514 <--
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004238625	A1	20041125	AU 2004-238625	20040514 <--
CA 2525438	A1	20041125	CA 2004-2525438	20040514 <--
EP 1622869	A1	20060208	EP 2004-733031	20040514 <--
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK			
JP 2006528964	T	20061228	JP 2006-530505	20040514 <--
US 20070015799	A1	20070118	US 2005-556901	20051115 <--
PRIORITY APPLN. INFO.:			GB 2003-11195	A 20030515 <--
			WO 2004-GB2101	W 20040514

OTHER SOURCE(S): MARPAT 142:6311  
 ED Entered STN: 25 Nov 2004  
 GI

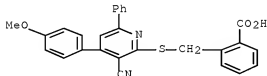


AB The invention relates to a preparation of benzamide derivs. of formula I [wherein: X is N or CH; R1 is H, CN, halogen, NH2, or S-alkyl, etc.; R2 is H, CF3, (un)substituted aryl, cycloalkyl, or heterocyclyl, etc.; R3 is the same as R2 excluding CF3; R4 is H, (un)substituted aryl or heterocyclyl; R5 is H, (un)substituted alkyl, aryl, or alkylene-aryl; L1 is (un)substituted alkylene, arylene, or alkylene-arylene, etc.; L2 is a single bond, (un)substituted alkylene, or C(O)-alkylene, etc.; L3 and L4 are independently selected from a single bond, (un)substituted alkylene, or alkylene-NHN(OH)C(O)-arylene, etc.], useful as glyoxalase inhibitors. For instance, benzamide derivative II (R6 =

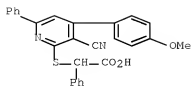
- OH; 80% proliferation inhibition in HL60s, IC50 = 8.3  $\mu$ M) was prepared via hydrolysis of N-(benzoyloxy)benzamide II [R6 = OC(O)Ph] with a yield of 41%.
- IC ICM C07C323-62  
ICS C07D213-70; C07D333-38; A61K031-10; A61K031-44; A61K031-4436;  
A61K031-381; A61P035-00
- CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)  
Section cross-reference(s): 1, 63
- IT 324774-82-5P 332040-74-1P 352544-89-9P  
354555-20-7P 354555-66-1P 354555-67-2P  
371222-06-9P 371237-12-6P 736152-30-0P 798555-86-9P  
798555-91-6P 798555-92-7P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(preparation of benzamide derivs. useful as glyoxalase inhibitors)
- IT 332040-74-1P 352544-89-9P 354555-20-7P  
354555-66-1P 354555-67-2P 371222-06-9P  
371237-12-6P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)  
(preparation of benzamide derivs. useful as glyoxalase inhibitors)
- RN 332040-74-1 HCAPLUS
- CN Butanoic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-3-methyl- (CA  
INDEX NAME)



- RN 352544-89-9 HCAPLUS
- CN Benzoic acid, 2-[[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]methyl]- (CA INDEX NAME)

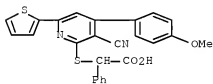


- RN 354555-20-7 HCAPLUS
- CN Benzeneacetic acid,  $\alpha$ -[[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



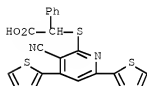
RN 354555-66-1 HCAPLUS

CN Benzenesacetic acid,  $\alpha$ -[[3-cyano-4-(4-methoxyphenyl)-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



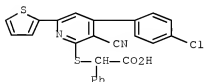
RN 354555-67-2 HCAPLUS

CN Benzenesacetic acid,  $\alpha$ -[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]- (CA INDEX NAME)



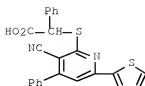
RN 371222-06-9 HCAPLUS

CN Benzenesacetic acid,  $\alpha$ -[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



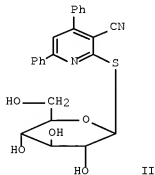
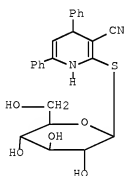
RN 371237-12-6 HCAPLUS

CN Benzenesacetic acid,  $\alpha$ -[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 5 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:552686 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 139:350884  
 TITLE: A new class of dihydropyridine thioglycosides via piperidinium salts  
 AUTHOR(S): Attia, Adel M.; Elgemeie, Galal H.  
 CORPORATE SOURCE: Department of Chemistry, Faculty of Education, Kafr El-Sheikh, Egypt  
 SOURCE: Synthetic Communications (2003), 33(13), 2243-2255  
 CODEN: SYNCAV; ISSN: 0039-7911  
 PUBLISHER: Marcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:350884  
 ED Entered STN: 20 Jul 2003  
 GI



AB A first reported method for preparation of a new class of thioglycosides, e.g. (I, II), via reaction of piperidinium salts of dihydropyridinethiones with 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-gluco- and galactopyranosyl bromides has been studied. Comparison with the products obtained from silylated thiopyridines is made. Aromatization of I to II was accomplished using EtOH/heat, or synthesis of the aromatic thioglycosides using pyridine thiones was an alternate route to II.

CC 33-3 (Carbohydrates)

Section cross-reference(s): 27

IT 58327-74-5P 126888-03-7P 131841-89-9P 148859-87-4P 618386-55-3P  
 618386-56-4P 618386-57-5P 618386-58-6P  
 618386-59-7P 618386-60-0P 618386-61-1P  
 618386-62-2P 618386-64-4P 618386-66-6P 618386-67-7P  
 618386-68-8P 618386-69-9P 618386-70-2P 618386-71-3P  
 618386-72-4P 618386-73-5P 618386-75-7P  
 618386-77-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of dihydropyridine thioglycosides from dihydropyridinethione piperidinium salts via SN2 coupling reaction and aromatization to pyridine derivs.)

IT 618386-78-0P 618386-79-1P 618386-80-4P  
 618386-81-5P 618386-82-6P 618386-83-7P  
 618386-84-8P 618386-85-9P 618386-86-0P  
 618386-87-1P 618386-88-2P 618386-89-3P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of dihydropyridine thioglycosides from dihydropyridinethione piperidinium salts via SN2 coupling reaction and aromatization to pyridine derivs.)

IT 618386-57-5P 618386-58-6P 618386-59-7P  
 618386-60-0P 618386-61-1P 618386-62-2P  
 618386-70-2P 618386-71-3P 618386-72-4P  
 618386-73-5P 618386-75-7P 618386-77-9P

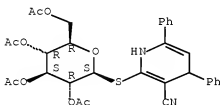
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of dihydropyridine thioglycosides from dihydropyridinethione piperidinium salts via SN2 coupling reaction and aromatization to pyridine derivs.)

RN 618386-57-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 1,4-dihydro-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)thio]- (CA INDEX NAME)

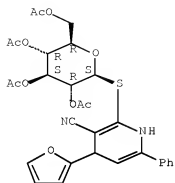
Absolute stereochemistry.



RN 618386-58-6 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl-β-D-glucopyranosyl)thio]- (CA INDEX NAME)

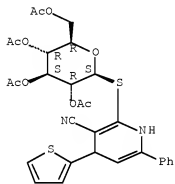
Absolute stereochemistry.



RN 618386-59-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl-beta-D-glucopyranosyl)thio]-4-(2-thienyl)- (CA INDEX NAME)

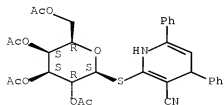
Absolute stereochemistry.



RN 618386-60-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 1,4-dihydro-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl-beta-D-galactopyranosyl)thio]- (CA INDEX NAME)

Absolute stereochemistry.



RN 618386-61-1 HCAPLUS

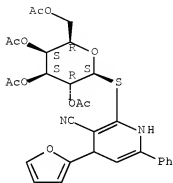
CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-



10/542,351

tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

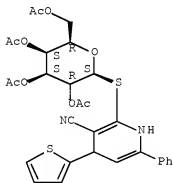
Absolute stereochemistry.



RN 618386-62-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]-4-(2-thienyl)- (CA INDEX NAME)

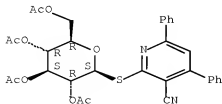
Absolute stereochemistry.



RN 618386-70-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

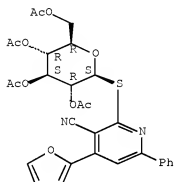
Absolute stereochemistry.



RN 618386-71-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

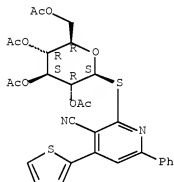
Absolute stereochemistry.



RN 618386-72-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]-4-(2-thienyl)- (CA INDEX NAME)

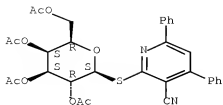
Absolute stereochemistry.



RN 618386-73-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

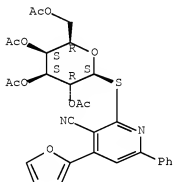
Absolute stereochemistry.



RN 618386-75-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl-beta-D-galactopyranosyl)thio]- (CA INDEX NAME)

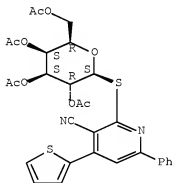
Absolute stereochemistry.



RN 618386-77-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-phenyl-2-[(2,3,4,6-tetra-O-acetyl-beta-D-galactopyranosyl)thio]-4-(2-thienyl)- (CA INDEX NAME)

Absolute stereochemistry.



IT	<u>618386-78-0P</u>	<u>618386-79-1P</u>	<u>618386-80-4P</u>
	<u>618386-81-5P</u>	<u>618386-82-6P</u>	<u>618386-83-7P</u>
	<u>618386-84-8P</u>	<u>618386-85-9P</u>	<u>618386-86-0P</u>

618386-87-1P 618386-88-2P 618386-89-3P

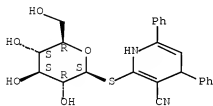
RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of dihydropyridine thioglycosides from dihydropyridinethione piperidinium salts via SN2 coupling reaction and aromatization to pyridine derivs.)

RN 618386-78-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-glucopyranosylthio)-1,4-dihydro-4,6-diphenyl- (CA INDEX NAME)

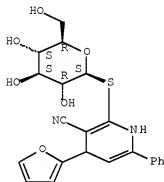
Absolute stereochemistry.



RN 618386-79-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-2-( $\beta$ -D-glucopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

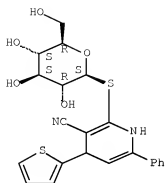
Absolute stereochemistry.



RN 618386-80-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-glucopyranosylthio)-1,4-dihydro-6-phenyl-4-(2-thienyl)- (CA INDEX NAME)

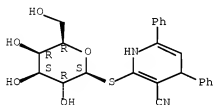
Absolute stereochemistry.



RN 618386-81-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-galactopyranosylthio)-1,4-dihydro-4,6-diphenyl- (CA INDEX NAME)

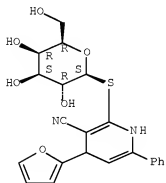
Absolute stereochemistry.



RN 618386-82-6 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-2-(β-D-galactopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



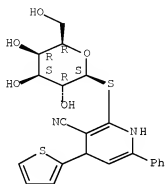
RN 618386-83-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-galactopyranosylthio)-1,4-dihydro-6-

10/542,351

phenyl-4-(2-thienyl)- (CA INDEX NAME)

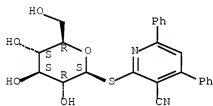
Absolute stereochemistry.



RN 618386-84-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-glucopyranosylthio)-4,6-diphenyl- (CA INDEX NAME)

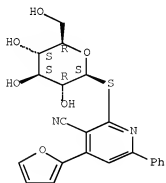
Absolute stereochemistry.



RN 618386-85-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-2-( $\beta$ -D-glucopyranosylthio)-6-phenyl- (CA INDEX NAME)

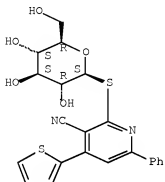
Absolute stereochemistry.



RN 618386-86-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-glucopyranosylthio)-6-phenyl-4-(2-thienyl)- (CA INDEX NAME)

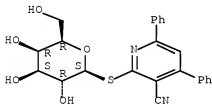
Absolute stereochemistry.



RN 618386-87-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-galactopyranosylthio)-4,6-diphenyl- (CA INDEX NAME)

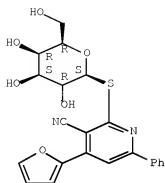
Absolute stereochemistry.



RN 618386-88-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-2-( $\beta$ -D-galactopyranosylthio)-6-phenyl- (CA INDEX NAME)

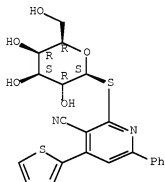
Absolute stereochemistry.



RN 618386-89-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-galactopyranosylthio)-6-phenyl-4-(2-thienyl)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 6 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:30560 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:357615

TITLE: Reactions of N-(2-chloroacetyl)- $\alpha$ -amino acids with 3-cyanopyridine-2(1H)-thiones. New promising route to 3,4-dihydropyrido[3',2':4,5]thieno[3,2-e][1,4]diazepine-2(1H),5-diones

AUTHOR(S): Fedorov, A. E.; Shestopalov, A. M.; Belyakov, P. A.  
CORPORATE SOURCE: N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 119991, Russia  
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2003), 52(10), 2197-2202

CODEN: RCBUEY; ISSN: 1066-5285

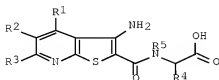
PUBLISHER: Kluwer Academic/Consultants Bureau

DOCUMENT TYPE: Journal

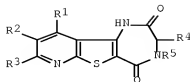
LANGUAGE: English



OTHER SOURCE(S): CASREACT 140:357615  
 ED Entered STN: 14 Jan 2004  
 GI



I



II

AB The reactions of N-(2-chloroacetyl)- $\alpha$ -amino acids with 3-cyanopyridine-2(1H)-thiones afforded N-[3-aminothieno[2,3-b]pyridin-2-ylcarbonyl]- $\alpha$ -amino acids I [R1 = Me, H, CF3, Ph; R2 = H, Ac, CN; R3 = Me, 4-pyridyl, NH2, Ph, 2-thienyl, CF3; R4 = H, Me, Me2CH, PhCH2 and R5 = H or R4R5 = (CH2)3]. Heating the latter smoothly produced 3,4-dihydropyrido[3',2':4,5]thieno[3,2-e][1,4]diazepine-2(1H),5-diones II in high yields.

CC 34-2 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 28

IT 691-80-5P 721-65-3P 2279-16-5P 6319-96-6P 23500-10-9P  
 128918-14-9P 385417-58-3P 445266-78-4P 682334-29-8P 682334-30-1P  
 682334-31-2P 682334-32-3P 682334-33-4P 682334-34-5P  
 682334-35-6P 682334-36-7P 682334-38-9P 682334-39-0P 682334-40-3P  
 682334-41-4P 682334-42-5P 682334-43-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(reactions of chloroacetyl amino acids with cyanopyridinethiones in synthesis of dihydropyridothienodiazepinediones)

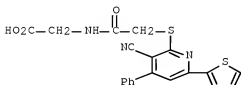
IT 682334-33-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(reactions of chloroacetyl amino acids with cyanopyridinethiones in synthesis of dihydropyridothienodiazepinediones)

RN 682334-33-4 HCAPLUS

CN Glycine, N-[[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]acetyl]- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 7 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2004:30559 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:225268

TITLE: 4-(3-Cyanopyridin-2-ylthio)acetoacetates in synthesis of heterocycles

AUTHOR(S): Rodinovskaya, L. A.; Shestopalov, A. M.; Gromova, A. V.

CORPORATE SOURCE: N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 119991, Russia

SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2002), 52(10), 2185-2196  
CODEN: RCBUEY; ISSN: 1066-5285

PUBLISHER: Kluwer Academic/Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:225268

ED Entered STN: 14 Jan 2004

AB Substituted 2-amino-4-aryl-3-cyano-5-oxo-5,6-dihydro-4H-pyrano[2,3-b]pyrido[3',2':4,5]thieno[3,2-b]pyridines were synthesized by the reactions of 4-hydroxy-1H-thieno[2,3-b;4,5-b]dipyridin-2-ones with arylidenemalononitriles or by the three-component reactions of hydroxythienodipyridinones with aldehydes and malononitrile in DMF in the presence of triethylamine. Methods for syntheses of substituted 3-alkoxycarbonyl-6-amino-4-aryl-2-(3-cyanopyridin-2-ylthiomethyl)-4H-pyrans were developed on the basis of the reactions of 4-(3-cyanopyridin-2-ylthio)acetoacetates and arylidenemalononitriles or aldehydes and malononitrile. Et 4-(3-cyanopyridin-2-ylthio)acetoacetate and 4-methoxybenzylidenecyanothioacetamide were used for the synthesis of 6-(pyridin-2-ylthiomethyl)-3-cyanopyridine-2(1H)-thione.

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

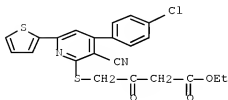
IT 263890-55-7P 290299-61-5P 290299-63-7P 290299-71-7P  
290299-83-1P 290299-89-7P 290299-93-3P 327070-70-2P 327167-61-3P  
332099-30-6P 339158-73-5P 339158-74-6P 339158-76-8P 340808-52-8P  
340813-16-3P 340813-19-6P 445390-62-5P 445390-63-6P 488725-51-5P  
625366-60-1P 625371-18-8P 625372-26-1P 674805-81-3P 674805-82-4P  
674805-84-6P 674805-91-5P 746638-39-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of substituted  
aminoarylcyanooxodihydropyranopyridothienopyridi  
nes via reactions of hydroxythienodipyridinones with arylidene  
malononitriles or via reactions of hydroxythienodipyridinones with  
aldehydes and malononitrile)

IT 298217-13-7P 316361-74-7P 317844-82-9P 327170-02-5P  
330180-52-4P 330853-34-4P 339580-55-1P 352662-78-3P 354554-90-8P  
354556-65-3P 354556-66-4P 445222-21-9P 445384-31-6P 445384-32-7P  
445384-77-0P 445385-25-1P 445390-92-1P 625366-16-7P 625366-78-1P  
625366-84-9P 625372-22-7P 625372-23-8P 625375-71-5P 664999-93-3P  
746638-37-9P 746638-38-0P 746638-40-4P 746638-41-5P 746638-42-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of substituted  
aminoarylcyanooxodihydropyranopyridothienopyridi  
nes via reactions of hydroxythienodipyridinones with arylidene  
malononitriles or via reactions of hydroxythienodipyridinones with  
aldehydes and malononitrile)

IT 290299-71-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of substituted  
aminoarylcyanooxodihydropyranopyridothienopyridi  
nes via reactions of hydroxythienodipyridinones with arylidene  
malononitriles or via reactions of hydroxythienodipyridinones with  
aldehydes and malononitrile)

RN 290299-71-7 HCAPLUS

CN Butanoic acid, 4-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, ethyl ester (CA INDEX NAME)

IT 316361-74-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of substituted

aminoarylcyanooxodihydropyranopyridothienopyridi

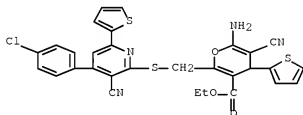
nes via reactions of hydroxythienodipyridinones with arylidene

malononitriles or via reactions of hydroxythienodipyridinones with

aldehydes and malononitrile)

RN 316361-74-7 HCAPLUS

CN 4H-Pyran-3-carboxylic acid, 6-amino-2-[[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]methyl]-5-cyano-4-(2-thienyl)-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 8 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:994927 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:287674

TITLE: Reactions of (S)-N-trifluoroacetyl-5-bromo-4-oxonorvaline methyl ester with vicinal mercaptonitriles. Synthesis of  $\delta$ -hetaryl-substituted  $\alpha$ -amino acidsAUTHOR(S): Fedorov, A. E.; Shestopalov, A. M.; Belyakov, P. A.  
CORPORATE SOURCE: N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 119991, Russia  
SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2003), 52(9), 2063-2069  
CODEN: RCBUEY; ISSN: 1066-5285

PUBLISHER: Kluwer Academic/Consultants Bureau

DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 140:287674  
 ED Entered STN: 22 Dec 2003

AB The reactions of (S)-N-trifluoroacetyl-5-bromo-4-oxonorvaline Me ester with vicinal mercaptonitriles afforded  $\delta$ -heteraryl-N-trifluoroacetyl- substituted  $\alpha$ -amino acids (heteraryl is thiazol-2-yl, 2-thienyl, or thieno[2,3-b]pyridin-6-yl).

CC 34-2 (Amino Acids, Peptides, and Proteins)

IT 488783-76-2P 676165-42-7P 676165-48-3P 676165-52-9P  
676165-53-0P 676165-54-1P 676165-55-2P 676165-56-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of  $\delta$ -heteroaryl  $\alpha$ -amino acids from trifluoroacetylbromooxonorvaline and vicinal mercaptonitriles)

IT 676165-52-9P 676165-53-0P

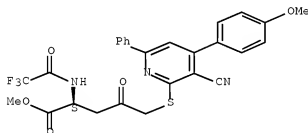
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of  $\delta$ -heteroaryl  $\alpha$ -amino acids from trifluoroacetylbromooxonorvaline and vicinal mercaptonitriles)

RN 676165-52-9 HCAPLUS

CN L-Norvaline, 5-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]-4-oxo-N-(trifluoroacetyl)-, methyl ester (9CI) (CA INDEX NAME)

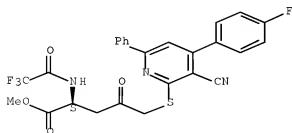
Absolute stereochemistry. Rotation (-).



RN 676165-53-0 HCAPLUS

CN L-Norvaline, 5-[[3-cyano-4-(4-fluorophenyl)-6-phenyl-2-pyridinyl]thio]-4-oxo-N-(trifluoroacetyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 9 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:526798 HCAPLUS Full-text

DOCUMENT NUMBER: 141:410788

TITLE: Synthesis and electrochemical oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids

AUTHOR(S): Baumann, L.; Krauze, A.; Chernova, L.; Sile, L.; Duburs, G.; Stradins, J.

CORPORATE SOURCE: Latvian Institute of Organic Synthesis, Riga, LV-1006, Latvia

SOURCE: Chemistry of Heterocyclic Compounds (New York, NY, United States) (Translation of Khimiya Geterotsiklicheskikh Soedinenii) (2003), 39(12), 1591-1599

CODEN: CHCCAL; ISSN: 0009-3122

PUBLISHER: Kluwer Academic/Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:410788

ED Entered STN: 01 Jul 2004

AB Nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-6-hydroxy-1,4,5,6-tetrahydropyridine-3-carboxylic acids were obtained by the alkylation of 1,4,5,6-tetrahydropyridine-2-thiolate with iodoacetamide or by a three-component synthesis by condensing 2-arylmethylene-1,3-dicarbonyl compds. with 2-cyanothioacetamide in the presence of piperidine with subsequent reaction with iodoacetamide. Nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids were obtained by the dehydration of 6-hydroxy-1,4,5,6-tetrahydropyridines or with a one-reactor three-component system from 2-cyano-3-(4-methoxyphenyl)thioacrylamide, 1,3-dicarbonyl compds., and iodoacetamide. The electrochem. oxidation of the synthesized nitriles was investigated and it was established that derivs. of 1,4,5,6-tetrahydropyridine as a rule are oxidized readily to the corresponding 1,4-dihydropyridines. A comparative anal. has been carried out of the ability of hydrogenated pyridines to be oxidized electrochem. depending on the electron-withdrawing properties of the substituents in the heterocycle.

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 22

IT 111853-33-9 111853-41-9 417709-57-0 417709-58-1  
417709-59-2

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)  
(synthesis and electrochem. oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

IT 793683-47-3P 793683-48-4P 793683-49-5P 793683-50-8P

793683-51-9P 793683-52-0P 793683-53-1P  
793683-54-2P  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
(synthesis and electrochem. oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

IT 528685-15-4

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
(synthesis and electrochem. oxidation of nitriles of 4-aryl-2-

carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

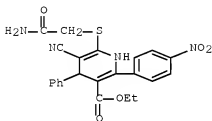
IT ~~417709-57-0~~ ~~417709-58-1~~ ~~417709-59-2~~

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)

(synthesis and electrochem. oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

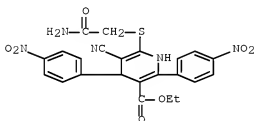
RN 417709-57-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2-(4-nitrophenyl)-4-phenyl-, ethyl ester (CA INDEX NAME)



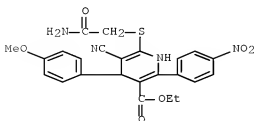
RN 417709-58-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2,4-bis(4-nitrophenyl)-, ethyl ester (CA INDEX NAME)



RN 417709-59-2 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-4-(4-methoxyphenyl)-2-(4-nitrophenyl)-, ethyl ester (CA INDEX NAME)

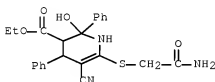


IT 793683-48-4P 793683-49-5P 793683-52-0P  
 793683-53-1P 793683-54-2P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)  
 (synthesis and electrochem. oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

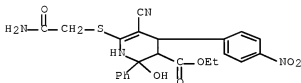
RN 793683-48-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,2,3,4-tetrahydro-2-hydroxy-2,4-diphenyl-, ethyl ester (CA INDEX NAME)



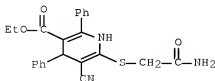
RN 793683-49-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,2,3,4-tetrahydro-2-hydroxy-4-(4-nitrophenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)



RN 793683-52-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2,4-diphenyl-, ethyl ester (CA INDEX NAME)

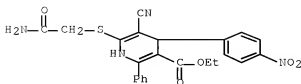


RN 793683-53-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-

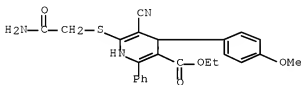
10/542,351

dihydro-4-(4-nitrophenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)



RN 793683-54-2 HCAPLUS

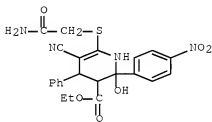
CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-4-(4-methoxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)

IT 628685-15-4

RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)  
 (synthesis and electrochem. oxidation of nitriles of 4-aryl-2-carbamoylmethylthio-5-ethoxycarbonyl-1,4-dihydropyridine-3-carboxylic acids)

RN 628685-15-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,2,3,4-tetrahydro-2-hydroxy-2-(4-nitrophenyl)-4-phenyl-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 10 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

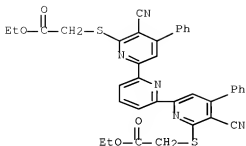
ACCESSION NUMBER: 2003:781885 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 140:321332

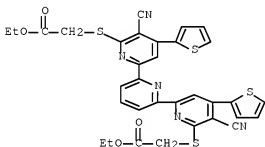
TITLE: Synthesis and Reactions of Some Fused Oxazinone,  
 Pyrimidinone, Thiopyrimidinone, and Triazinone



Derivatives with a Thiophene Ring as Analgesic, Anticonvulsant, and Antiparkinsonian Agents  
 AUTHOR(S): Amr, Abdel-Galil E.; Hegab, Mohamed I.; Ibrahim, Alhusain A.; Abdulla, Mohamed M.  
 CORPORATE SOURCE: Organic Chemistry Dept., National Research Center, Cairo, Egypt  
 SOURCE: Monatshefte fuer Chemie (1983), 134(10), 1395-1409  
 CODEN: MOCMB7; ISSN: 0026-9247  
 PUBLISHER: Springer-Verlag Wien  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 140:321332  
 ED Entered STN: 06 Oct 2003  
 AB A series of 2,6-disubstituted pyridine ester derivs. and the corresponding amides were prepared. The esters were hydrolyzed to the sodium salts, which were treated with acetic anhydride to afford oxazinone derivs. These were treated with ammonium acetate to afford 2-methylpyrimidinone derivs., which were methylated to yield 2,3-dimethylpyrimidinone derivs. In addition, they were reacted with aniline or hydrazine hydrate to give 3-phenyl- or 3-aminopyrimidinone derivs. The latter reacted with 2-thiophenecarbaldehyde or phthalic anhydride to afford the corresponding Schiff's base and imide derivs. Diazotization of amides gave thienotriazinone derivs., which were treated with Et iodide to afford the corresponding 3-ethyltriazinone derivs. Also, they were reacted with Ph isothiocyanate to give the corresponding thiopyrimidinone derivs., which were alkylated with Et iodide or chloroacetic acid to afford the corresponding thioethyl- or thioglycolic acid pyrimidinone derivs. The pharmacol. screening showed that many of these obtained compds. have good analgesic, anticonvulsant, and antiparkinsonian activities comparable to Voltarene, Carbamazepine, and Benzotropine as reference drugs.  
 CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1  
 IT 678145-36-3P 678145-38-5P 678145-40-9P 678145-41-0P  
 678145-43-2P 678145-44-3P 678145-46-5P 678145-47-6P 678145-48-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of pyridothieno-fused oxazinone, pyrimidinone, thiopyrimidinone, and triazinone derivs. as analgesic, anticonvulsant, and antiparkinsonian agents)  
 IT 678145-38-5P 678145-40-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of pyridothieno-fused oxazinone, pyrimidinone, thiopyrimidinone, and triazinone derivs. as analgesic, anticonvulsant, and antiparkinsonian agents)  
 RN 678145-38-5 HCAPLUS  
 CN Acetic acid, 2,2'-[(5,5'-dicyano-4,4''-diphenyl[2,2':6',2''-terpyridine]-6,6''-diyl)bis(thio)]bis-, diethyl ester (9CI) (CA INDEX NAME)



RN 678145-40-9 HCAPLUS  
 CN Acetic acid, 2,2'-[(5,5'-dicyano-4,4'-di-2-thienyl)bis(thio)]bis-, diethyl ester (9CI) (CA INDEX NAME)

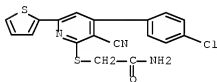


REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

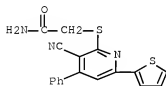
L57 ANSWER 11 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:979753 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 139:22191  
 TITLE: Some Reactions of 2-Functionalized  
 3-Amino-4-aryl-6-(2'-thienyl)-thieno[2,3-b]pyridines:  
 Synthesis of New Pyridothienopyrimidines,  
 Pyridothienotriazines and Related Fused Tetracyclic  
 Systems  
 AUTHOR(S): Abdel-Rahman, A. E.; Bakhite, E. A.; Mohamed, O. S.;  
 Thabet, E. A.  
 CORPORATE SOURCE: Faculty of Science, Chemistry Department, Assiut  
 University, Assiut, Egypt  
 SOURCE: Phosphorus, Sulfur and Silicon and the Related  
 Elements (2003), 178(1), 89-106  
 CODEN: PSSLEC; ISSN: 1042-6507  
 PUBLISHER: Taylor & Francis Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:22191  
 ED Entered STN: 30 Dec 2002  
 AB 4-Aryl-3-cyano-6-(2'-thienyl)-pyridine-2(1H)-thiones were prepared and treated  
 with chloroacetonitrile or chloroacetamide to furnish 3-amino-4-aryl-6-(2'-

thienyl)-thieno[2,3-b]pyridine-2-carbonitriles and 2-carboxamide analogs, resp. The reaction of these compds. with a variety of reagents namely, formamide, carbon disulfide, Ph isothiocyanate, ethylene diamine, sodium azide, tri-Et orthoformate, and nitrous acid have been carried out and their products were identified. Most of these products were subjected to further reactions to obtain the rest of the title compds.

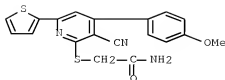
- CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT 82127-11-5P 82127-15-9P 82127-20-6P 82127-22-8P 82137-61-9P  
 128342-41-6P 296798-15-7P 299165-55-2P 299168-73-3P  
299440-71-4P 313380-19-7P 330182-01-9P 539829-71-5P  
 539829-83-9P 539829-92-0P 539829-94-2P 539830-09-6P 539830-11-0P  
 539830-15-4P 539830-25-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (reactions of functionalized (amino) (aryl) (thienyl) thieno[2,3-  
 b]pyridines and preparation of pyridothienopyrimidines,  
 pyridothienotriazines and related fused tetracyclic compds.)  
 IT 296798-15-7P 299440-71-4P 313380-19-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (reactions of functionalized (amino) (aryl) (thienyl) thieno[2,3-  
 b]pyridines and preparation of pyridothienopyrimidines,  
 pyridothienotriazines and related fused tetracyclic compds.)  
 RN 296798-15-7 HCAPLUS  
 CN Acetamide, 2-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-  
 (CA INDEX NAME)



- RN 299440-71-4 HCAPLUS  
 CN Acetamide, 2-[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]- (CA  
 INDEX NAME)

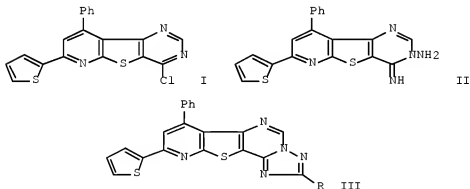


- RN 313380-19-7 HCAPLUS  
 CN Acetamide, 2-[[3-cyano-4-(4-methoxyphenyl)-6-(2-thienyl)-2-pyridinyl]thio]-  
 (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

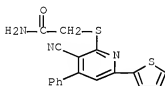
L57 ANSWER 12 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:357354 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 139:230708  
 TITLE: Synthesis of some new pyrido[3,2-d]thienopyrimidines and related [1,2,4]triazolopyrido[3,2-d]thienopyrimidines  
 AUTHOR(S): Bakhite, E. A.; Abdel-Rahman, A. E.; Mohamed, O. S.; Thabet, E. A.  
 CORPORATE SOURCE: Chemistry Department, Faculty of Science, Assiut University, Assiut, 71516, Egypt  
 SOURCE: Journal of Chemical Research, Synopses (2003), (2), 58-59, 0236-0247  
 CODEN: JRPSDC; ISSN: 0308-2342  
 PUBLISHER: Science Reviews  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 139:230708  
 ED Entered STN: 12 May 2003  
 GI



AB 4-Chloro-9-phenyl-7-(2-thienyl)pyrido[3',2':4,5]thieno[3,2-d]pyrimidine (I) and 3-amino-3,4-dihydro-4-imino-9-phenyl-7-(2-thienyl)pyrido[3',2':4,5]thieno[3,2-d]pyrimidine (II) were prepared and employed as precursors for synthesizing the title fused-ring compds., e.g., III (R = CH<sub>2</sub>COOEt, Ph).  
 CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT 82137-61-9P [285440-11-4P](#) 594859-44-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate, heterocyclization of; new pyridothienopyrimidines and related [1,2,4]triazolopyridothienopyrimidines)

IT 299440-71-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate, heterocyclization of; new pyridothienopyrimidines and related [1,2,4]triazolopyridothienopyrimidines)  
 RN 299440-71-4 HCAPLUS  
 CN Acetamide, 2-[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 13 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2003:26725 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 138:385404  
 TITLE: Synthesis and reactions of new thienopyridines, pyridothienopyrimidines and pyridothienotriazines  
 AUTHOR(S): Bakhite, E. A.; Abdel-Rahman, A. E.; Mohamed, O. S.; Thabet, E. A.  
 CORPORATE SOURCE: Chemistry Department, Faculty of Science, Assiut University, Assiut, 71516, Egypt  
 SOURCE: Bulletin of the Korean Chemical Society (2002), 23(12), 1709-1714  
 CODEN: BKCSDE; ISSN: 0253-2964  
 PUBLISHER: Korean Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:385404  
 ED Entered STN: 13 Jan 2003  
 GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The reaction of 1,2-dihydro-4-phenyl-6-(2-thienyl)-2-thioxo-3-Pyridinecarbonitrile derivs. I (R = H, OMe, Cl) were reported. Compds. thus prepared included 3-amino-N-aryl-4-phenyl-6-(2-thienyl)thieno[2,3-b]pyridine-2-carboxamide derivs. II (R = H, Me, Cl; X = CH, N). Compds. II underwent a different sequence of reactions to produce a variety of thienylpyridothienopyrimidinones III (R = H, Me, Cl; X = CH, N) and thienylpyridothienotriazines. Some of the prepared compds. were tested in vitro for their [antimicrobial](#) activities.  
 CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 1, 10

- ST pyridinecarbonitrile thienyl prepn antimicrobial  
antibacterial antifungal; thienopyridinyl ketone thienyl prepn  
antimicrobial antibacterial antifungal;  
 thienopyridinecarboxamide thienyl prepn antimicrobial  
antibacterial antifungal; thienopyridopyrimidine thienyl prepn  
antimicrobial antibacterial antifungal;  
 thienopyridopyrimidinone thienyl prepn antimicrobial  
antibacterial antifungal; pyridothienotriazine thienyl prepn  
antimicrobial antibacterial antifungal;  
 pyridothienotriazinone thienyl prepn antimicrobial  
antibacterial antifungal
- IT Antibacterial agents  
Antimicrobial agents  
 Fungicides  
 (preparation and antimicrobial activity of  
 (thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
 (thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
 nes)
- IT 372082-67-2P 522623-24-1P 522623-27-4P  
 522623-28-5P 522623-29-6P, 3-Amino-N,4-diphenyl-6-(2-thienyl)thieno[2,3-  
 b]pyridine-2-carboxamide 522623-32-1P 522623-41-2P  
 RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic  
 preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant  
 or reagent)  
 (preparation and antimicrobial activity of  
 (thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
 (thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
 nes)
- IT 522623-33-2P 522623-36-5P 522623-38-7P 522623-40-1P 522623-42-3P  
 522623-45-6P 522623-46-7P 522623-48-9P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL  
 (Biological study); PREP (Preparation)  
 (preparation and antimicrobial activity of  
 (thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
 (thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
 nes)
- IT 70-11-1, 2-Bromo-1-phenylethanone 122-51-0, 1,1',1''-  
 [Methylidynetris(oxy)]tris[ethane] 587-65-5, 2-Chloro-N-phenylacetamide  
 5221-37-4, 2-Chloro-N-(2-pyridinyl)acetamide 82127-11-5,  
 1,2-Dihydro-4-phenyl-6-(2-thienyl)-2-thioxo-3-Pyridinecarbonitrile  
 82127-15-9, 4-(4-Chlorophenyl)-1,2-dihydro-6-(2-thienyl)-2-thioxo-3-  
 Pyridinecarbonitrile 128342-41-6, 1,2-Dihydro-4-(4-methoxyphenyl)-6-(2-  
 thienyl)-2-thioxo-3-Pyridinecarbonitrile  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation and antimicrobial activity of  
 (thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
 (thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
 nes)
- IT 522623-22-3P 522623-23-0P 522623-25-2P  
 522623-26-3P 522623-30-9P 522623-31-0P 522623-47-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and antimicrobial activity of  
 (thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
 (thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
 nes)
- IT 301847-16-5P 371214-05-0P 522623-34-3P 522623-35-4P 522623-37-6P  
 522623-39-8P 522623-43-4P 522623-44-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and antimicrobial activity of

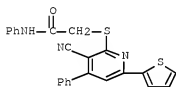
(thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
(thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
nes)

IT 372082-67-2P 522623-24-1P 522623-27-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant  
or reagent)  
(preparation and antimicrobial activity of  
(thienyl)pyridinecarbonitriles, (thienyl)thienopyridinyl ketones,  
(thienyl)thienopyridinecarboxamides and (thienyl)thienopyridopyrimidino  
nes)

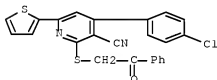
RN 372082-67-2 HCAPLUS

CN Acetamide, 2-[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]-N-phenyl-  
(CA INDEX NAME)



RN 522623-24-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(4-chlorophenyl)-2-[(2-oxo-2-phenylethyl)thio]-6-  
(2-thienyl)- (CA INDEX NAME)

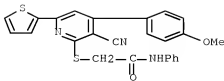


RN 522623-27-4 HCAPLUS

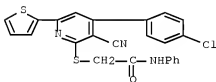
CN Acetamide, 2-[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]-N-2-  
pyridinyl- (CA INDEX NAME)







RN 522623-26-3 HCAPLUS  
 CN Acetamide, 2-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-N-phenyl- (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 14 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:95519 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 137:20512  
 TITLE: Synthesis of thiopyridines and their hydrogenated thioglycosides via piperidinium salts  
 AUTHOR(S): Attia, Adel M. E.  
 CORPORATE SOURCE: Faculty of Education, Department of Chemistry, University of Tanta (Kafr El-Sheikh Branch), 33516, Egypt  
 SOURCE: Tetrahedron (2002), 58(7), 1399-1405  
 CODEN: TETRAB; ISSN: 0040-4020  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:20512  
 ED Entered STN: 05 Feb 2002  
 AB The synthesis of several new thiopyridines and their hydrogenated thioglycosides via the reaction of piperidinium salts of dihydropyridinethiones with  $\alpha$ -halogeno sugars is described.  
 CC 33-3 (Carbohydrates)  
 Section cross-reference(s): 1, 27  
 IT 435333-25-8P 435333-27-0P 435333-29-2P 435333-31-6P 435333-34-9P  
 435333-37-2P 435333-40-7P 435333-43-0P [435333-46-3P](#)  
[435333-48-5P](#) [435333-50-9P](#) [435333-52-1P](#)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)  
 IT [435333-54-3P](#) [435333-56-5P](#) [435333-58-7P](#)  
[435333-60-1P](#)

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

IT 435333-62-3P 435333-64-5P 435333-66-7P  
435333-68-9P 435333-70-3P 435333-72-5P  
435333-74-7P 435333-76-9P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, antitumor activity, and antiviral activity against HIV-1 in MT-4 cells of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

IT 435333-78-1P 435333-80-5P 435333-82-7P  
435333-85-0P 435333-88-3P 435333-90-7P  
435333-92-9P 435333-94-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis, antitumor activity, and antiviral activity against HIV-1 in MT-4 cells of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

IT 435333-46-3P 435333-48-5P 435333-50-9P  
435333-52-1P

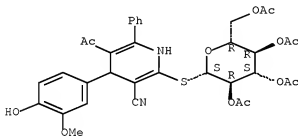
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

RN 435333-46-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

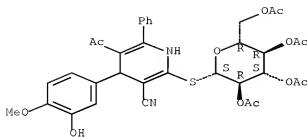
Absolute stereochemistry.



RN 435333-48-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

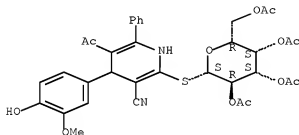
Absolute stereochemistry.



RN 435333-50-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

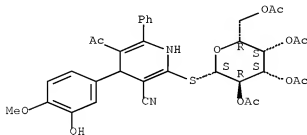
Absolute stereochemistry.



RN 435333-52-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

Absolute stereochemistry.



IT 435333-54-3P 435333-56-5P 435333-58-7P

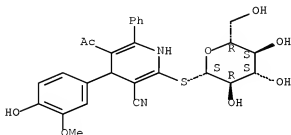
435333-60-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

RN 435333-54-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-glucopyranosylthio)-1,4-dihydro-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

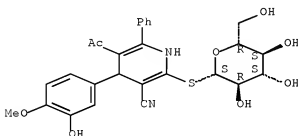
Absolute stereochemistry.



RN 435333-56-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-glucopyranosylthio)-1,4-dihydro-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

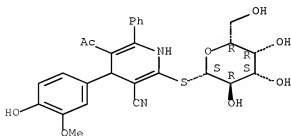
Absolute stereochemistry.



RN 435333-58-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-galactopyranosylthio)-1,4-dihydro-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

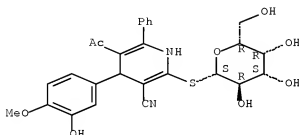
Absolute stereochemistry.



RN 435333-60-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-galactopyranosylthio)-1,4-dihydro-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



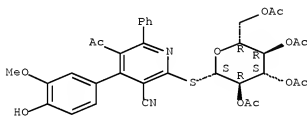
IT 435333-62-3P 435333-64-5P 435333-66-7P  
435333-68-9P 435333-70-3P 435333-72-5P  
435333-74-7P 435333-76-9P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis, antitumor activity, and antiviral activity against HIV-1 in MT-4 cells of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

RN 435333-62-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

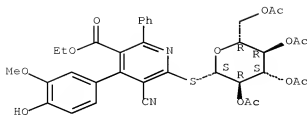
Absolute stereochemistry.



RN 435333-64-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-4-(4-hydroxy-3-methoxyphenyl)-2-phenyl-6-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]-, ethyl ester  
 (CA INDEX NAME)

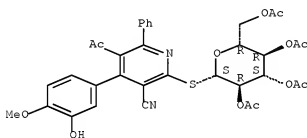
Absolute stereochemistry.



RN 435333-66-7 HCAPLUS

CN 3-Pyridinecarboxitrile, 5-acetyl-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

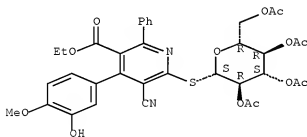
Absolute stereochemistry.



RN 435333-68-9 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-4-(3-hydroxy-4-methoxyphenyl)-2-phenyl-6-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]-, ethyl ester (CA INDEX NAME)

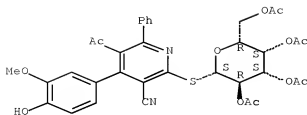
Absolute stereochemistry.



RN 435333-70-3 HCAPLUS

CN 3-Pyridinecarboxitrile, 5-acetyl-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

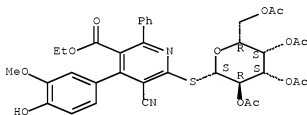
Absolute stereochemistry.



RN 435333-72-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-4-(4-hydroxy-3-methoxyphenyl)-2-phenyl-6-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]-, ethyl ester  
(CA INDEX NAME)

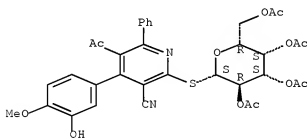
Absolute stereochemistry.



RN 435333-74-7 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

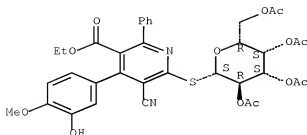
Absolute stereochemistry.



RN 435333-76-9 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-4-(3-hydroxy-4-methoxyphenyl)-2-phenyl-6-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]-, ethyl ester  
(CA INDEX NAME)

Absolute stereochemistry.



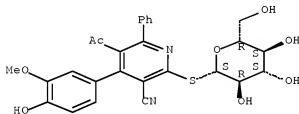
IT 435333-78-1P 435333-80-5P 435333-82-7P  
435333-85-0P 435333-88-3P 435333-90-7P  
435333-92-9P 435333-94-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (synthesis, antitumor activity, and antiviral activity against HIV-1 in MT-4 cells of thiopyridines and their hydrogenated thioglycosides via piperidinium salts)

RN 435333-78-1 HCAPLUS

CN 3-Pyridinecarboxynitrile, 5-acetyl-2-(β-D-glucopyranosylthio)-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

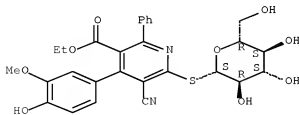
Absolute stereochemistry.



RN 435333-80-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-6-(β-D-glucopyranosylthio)-4-(4-hydroxy-3-methoxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry.

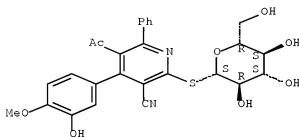


RN 435333-82-7 HCAPLUS



CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-glucopyranosylthio)-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

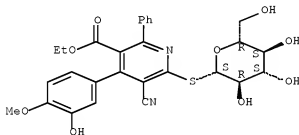
Absolute stereochemistry.



RN 435333-85-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-6-( $\beta$ -D-glucopyranosylthio)-4-(3-hydroxy-4-methoxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)

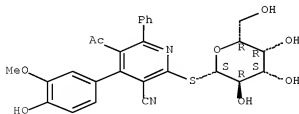
Absolute stereochemistry.



RN 435333-88-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-( $\beta$ -D-galactopyranosylthio)-4-(4-hydroxy-3-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

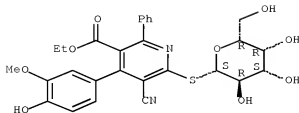
Absolute stereochemistry.



RN 435333-90-7 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-6-( $\beta$ -D-galactopyranosylthio)-4-(4-hydroxy-3-methoxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)

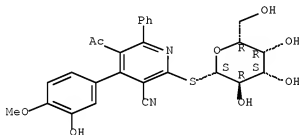
Absolute stereochemistry.



RN 435333-92-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-(β-D-galactopyranosylthio)-4-(3-hydroxy-4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

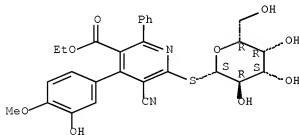
Absolute stereochemistry.



RN 435333-94-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, 5-cyano-6-(β-D-galactopyranosylthio)-4-(3-hydroxy-4-methoxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)

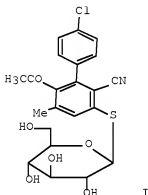
Absolute stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 15 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2002:753822 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 138:106896  
 TITLE: First glycoside synthesis via piperidinium salts of heterocyclic nitrogen bases: the synthesis of a new class of dihydropyridine thioglycosides  
 AUTHOR(S): Attia, Adel M.; Elgemeie, Galal H.  
 CORPORATE SOURCE: Department of Chemistry, Faculty of Science, Helwan University, Cairo, Egypt  
 SOURCE: Journal of Carbohydrate Chemistry (2002), 21(4), 325-339  
 CODEN: JCACDM; ISSN: 0732-8303  
 PUBLISHER: Marcel Dekker, Inc.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 138:106896  
 ED Entered STN: 04 Oct 2002  
 GI



I

AB A first reported method for preparation of a new class of thioglycosides, e.g. I, via reaction of piperidinium salts of dihydropyridinethiones with 2,3,4,6-tetra-O-acetyl- $\alpha$ -D-glucosyl and galactopyranosyl bromides has been studied. Comparison with the products obtained from silylated thiopyridines is made.

CC 33-3 (Carbohydrates)

IT 103868-17-3P 103868-29-7P 121104-38-9P 121104-40-3P 137451-62-8P  
 137451-63-9P 488759-74-6P 488759-76-8P 488759-78-0P 488759-80-4P  
 488759-82-6P 488759-83-7P 488759-84-8P 488759-85-9P

~~488759-86-0P~~ ~~488759-87-1P~~ ~~488759-88-2P~~  
 488759-89-3P 488759-90-6P 488759-91-7P ~~488759-92-8P~~  
~~488759-93-9P~~ ~~488759-94-0P~~ 488759-95-1P 488759-96-2P  
 488759-97-3P ~~488759-98-4P~~ ~~488759-99-5P~~  
~~488760-00-5P~~ 488760-01-6P 488760-02-7P 488760-03-8P  
~~488760-04-9P~~ ~~488760-05-0P~~ ~~488760-06-1P~~  
 488760-31-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of dihydropyridine thioglycosides via glycosylation of piperidinium salts of heterocyclic nitrogen bases)

IT 488760-07-2P 488760-08-3P 488760-09-4P ~~488760-10-7P~~  
~~488760-11-8P~~ ~~488760-12-9P~~ 488760-13-0P 488760-14-1P  
 488760-15-2P ~~488760-16-3P~~ ~~488760-17-4P~~  
~~488760-18-5P~~ 488760-19-6P 488760-20-9P 488760-21-0P

488760-22-1P 488760-23-2P 488760-24-3P  
 488760-25-4P 488760-26-5P 488760-27-6P 488760-28-7P  
 488760-29-8P 488760-30-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of dihydropyridine thioglycosides via glycosylation of  
 piperidinium salts of heterocyclic nitrogen bases)

IT 488759-86-6P 488759-87-1P 488759-88-2P  
 488759-92-8P 488759-93-9P 488759-94-0P  
 488759-96-4P 488759-99-5P 488760-00-5P  
 488760-04-9P 488760-05-0P 488760-06-1P

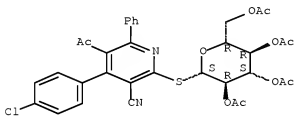
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(synthesis of dihydropyridine thioglycosides via glycosylation of  
 piperidinium salts of heterocyclic nitrogen bases)

RN 488759-86-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-6-phenyl-2-[(2,3,4,6-  
 tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

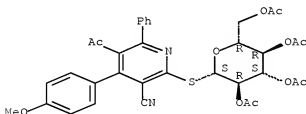
Absolute stereochemistry. Rotation (+).



RN 488759-87-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-  
 tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

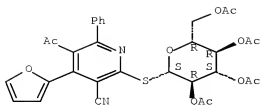
Absolute stereochemistry. Rotation (+).



RN 488759-88-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-6-phenyl-2-[(2,3,4,6-tetra-  
 O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

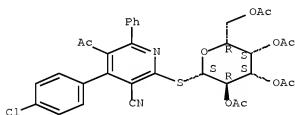
Absolute stereochemistry. Rotation (+).



RN 488759-92-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

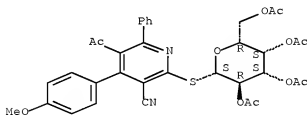
Absolute stereochemistry. Rotation (+).



RN 488759-93-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

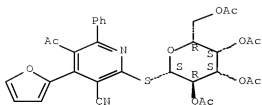
Absolute stereochemistry. Rotation (+).



RN 488759-94-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

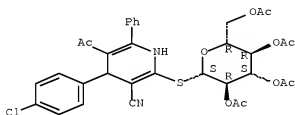
Absolute stereochemistry. Rotation (+).



RN 488759-98-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

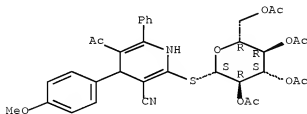
Absolute stereochemistry.



RN 488759-99-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

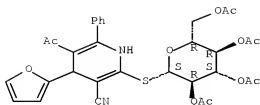
Absolute stereochemistry.



RN 488760-00-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (CA INDEX NAME)

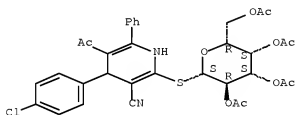
Absolute stereochemistry.



RN 488760-04-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

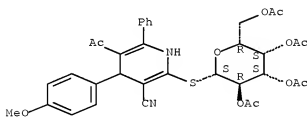
Absolute stereochemistry.



RN 488760-05-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-1,4-dihydro-4-(4-methoxyphenyl)-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

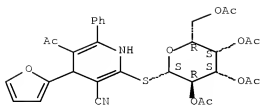
Absolute stereochemistry.



RN 488760-06-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-1,4-dihydro-6-phenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (CA INDEX NAME)

Absolute stereochemistry.



IT 488760-10-7P 488760-11-8P 488760-12-9P  
 488760-16-3P 488760-17-4P 488760-19-5P  
 488760-22-1P 488760-23-2P 488760-24-3P  
 488760-28-7P 488760-29-9P 488760-30-1P

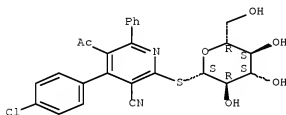
RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of dihydropyridine thioglycosides via glycosylation of piperidinium salts of heterocyclic nitrogen bases)

RN 488760-10-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(β-D-glucopyranosylthio)-6-phenyl- (CA INDEX NAME)

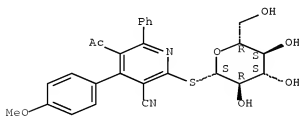
Absolute stereochemistry. Rotation (+).



RN 488760-11-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-(β-D-glucopyranosylthio)-4-(4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

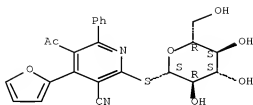


RN 488760-12-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-2-(β-D-glucopyranosylthio)-6-phenyl- (CA INDEX NAME)



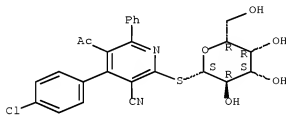
Absolute stereochemistry.



RN 488760-16-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(β-D-galactopyranosylthio)-6-phenyl- (CA INDEX NAME)

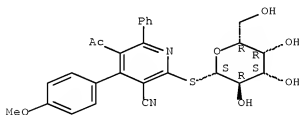
Absolute stereochemistry.



RN 488760-17-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-(β-D-galactopyranosylthio)-4-(4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

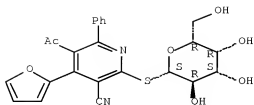
Absolute stereochemistry. Rotation (+).



RN 488760-18-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-2-(β-D-galactopyranosylthio)-6-phenyl- (CA INDEX NAME)

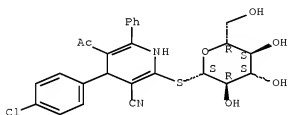
Absolute stereochemistry. Rotation (+).



RN 488760-22-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(β-D-glucopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

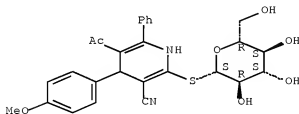
Absolute stereochemistry.



RN 488760-23-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-(β-D-glucopyranosylthio)-1,4-dihydro-4-(4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

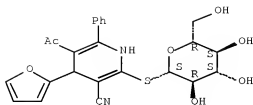
Absolute stereochemistry.



RN 488760-24-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-2-(β-D-glucopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

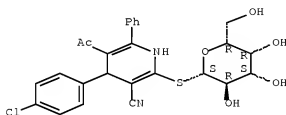
Absolute stereochemistry.



RN 488760-28-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(4-chlorophenyl)-2-(β-D-galactopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

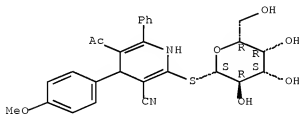
Absolute stereochemistry.



RN 488760-29-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-2-(β-D-galactopyranosylthio)-1,4-dihydro-4-(4-methoxyphenyl)-6-phenyl- (CA INDEX NAME)

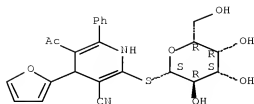
Absolute stereochemistry.



RN 488760-30-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-acetyl-4-(2-furanyl)-2-(β-D-galactopyranosylthio)-1,4-dihydro-6-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 16 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:323218 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 137:125331

TITLE: Synthesis and biological evaluation of S-glycosylated pyridines

AUTHOR(S): Attia, Adel M. E.

CORPORATE SOURCE: Department of Chemistry, Faculty of Education, University of Tanta (Kafr El-Sheikh Branch), Egypt

SOURCE: Nucleosides, Nucleotides & Nucleic Acids (2002), 21(3), 207-216

CODEN: NNNAFY; ISSN: 1525-7770

PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:125331

ED Entered STN: 01 May 2002

AB The formation of unnatural nucleosides, 2-(β-D- glycopyranosylthio)pyridines, via the reaction of sodium salts of thiopyridines with glycosyl bromides has been studied. Comparison with the products obtained from silylated thiopyridines and peracetylated sugars is made. <sup>13</sup>C NMR was utilized to elucidate the proposed structures of the products. Cytotoxicity of the final products was tested against different types of tumor viruses and HIV-1; no significant activity was found (no data).

CC 33-3 (Carbohydrates)

Section cross-reference(s): 1, 27

IT [444102-91-1P](#) [444102-92-5P](#) [444102-93-6P](#)

[444102-94-7P](#) [444102-95-8P](#) [444102-96-9P](#)

[444102-97-0P](#) [444102-98-1P](#) [444102-99-2P](#)

[444103-00-3P](#)

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis, anti-HIV and antitumor activity of S-glycosylated pyridines)

IT [444103-01-9P](#) [444103-02-0P](#) [444103-03-1P](#)

[444103-04-2P](#) [444103-05-3P](#) [444103-06-4P](#)

[444103-07-5P](#) [444103-08-6P](#) [444103-09-7P](#)

[444103-10-0P](#)

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis, anti-HIV and antitumor activity of S-glycosylated pyridines)

IT [444102-91-4P](#) [444102-92-5P](#) [444102-93-6P](#)

[444102-94-7P](#) [444102-95-8P](#) [444102-96-9P](#)

[444102-97-0P](#) [444102-98-1P](#) [444102-99-2P](#)

444103-00-SP

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

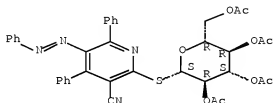
(synthesis, anti-HIV and antitumor activity of S-glycosylated pyridines)

RN 444102-91-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 4,6-diphenyl-5-(phenylazo)-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

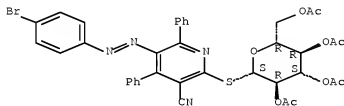


RN 444102-92-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-bromophenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

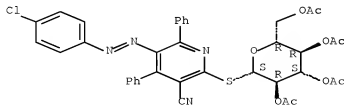


RN 444102-93-6 HCAPLUS

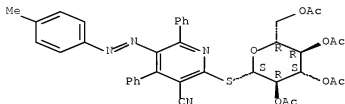
CN 3-Pyridinecarbonitrile, 5-[(4-chlorophenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

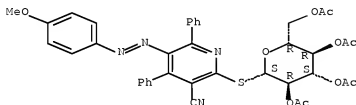
Double bond geometry unknown.



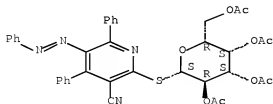
RN 444102-94-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-methylphenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)Absolute stereochemistry.  
Double bond geometry unknown.

RN 444102-95-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-methoxyphenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-glucopyranosyl)thio]- (9CI) (CA INDEX NAME)Absolute stereochemistry.  
Double bond geometry unknown.

RN 444102-96-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 4,6-diphenyl-5-(phenylazo)-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (9CI) (CA INDEX NAME)Absolute stereochemistry.  
Double bond geometry unknown.

RN 444102-97-0 HCAPLUS

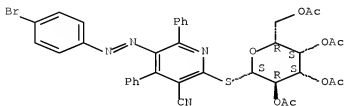
CN 3-Pyridinecarbonitrile, 5-[(4-bromophenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-

10/542,351

tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

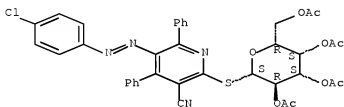


RN 444102-98-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-chlorophenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

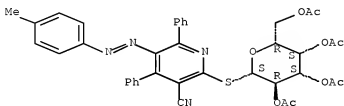


RN 444102-99-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-methylphenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

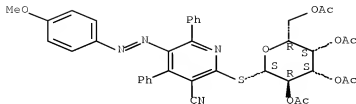


RN 444103-00-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-methoxyphenyl)azo]-4,6-diphenyl-2-[(2,3,4,6-tetra-O-acetyl- $\beta$ -D-galactopyranosyl)thio]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



IT 444103-01-9P 444103-02-0P 444103-03-1P  
444103-04-2P 444103-05-3P 444103-06-4P  
444103-07-5P 444103-08-6P 444103-09-7P  
444103-10-0P

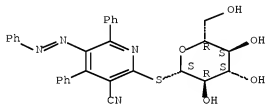
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (synthesis, anti-HIV and antitumor activity of S-glycosylated pyridines)

RN 444103-01-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-( $\beta$ -D-glucopyranosylthio)-4,6-diphenyl-5-(phenylazo)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

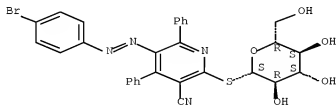


RN 444103-02-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-bromophenyl)azo]-2-( $\beta$ -D-glucopyranosylthio)-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



RN 444103-03-1 HCAPLUS

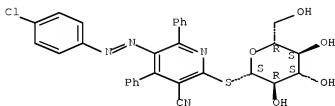
CN 3-Pyridinecarbonitrile, 5-[(4-chlorophenyl)azo]-2-( $\beta$ -D-



glucopyranosylthio)-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

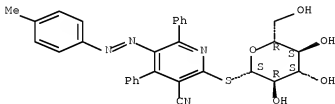


RN 444103-04-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-glucopyranosylthio)-5-[(4-methylphenyl)azo]-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

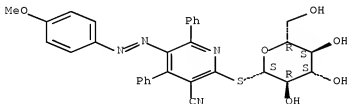


RN 444103-05-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-glucopyranosylthio)-5-[(4-methoxyphenyl)azo]-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

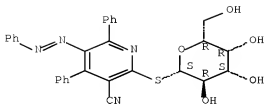


RN 444103-06-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-galactopyranosylthio)-4,6-diphenyl-5-(phenylazo)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

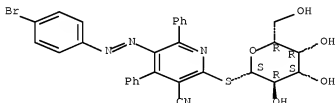


RN 444103-07-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-bromophenyl)azo]-2-(β-D-galactopyranosylthio)-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

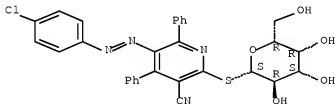


RN 444103-08-6 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[(4-chlorophenyl)azo]-2-(β-D-galactopyranosylthio)-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

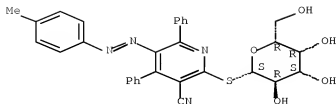


RN 444103-09-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-galactopyranosylthio)-5-[(4-methylphenyl)azo]-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.

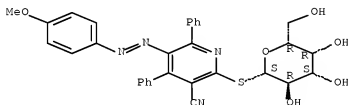


RN 444103-10-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-(β-D-galactopyranosylthio)-5-[(4-methoxyphenyl)azo]-4,6-diphenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 17 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:274972 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 137:140466

TITLE: Convenient methods for synthesis of partially hydrogenated benzothiazol-2-ylpyridines

AUTHOR(S): Krivokolysko, S. G.; Dyachenko, V. D.; Litvinov, V. P.  
CORPORATE SOURCE: Taras Shevchenko Lugansk State Pedagogical University, Luhansk, 348011, Ukraine

SOURCE: Chemistry of Heterocyclic Compounds (New York, NY, United States) (Translation of Khimiya Geterotsiklicheskih Soedinenii) (2001), 37(9), 1114-1118

CODEN: CHCCAL; ISSN: 0009-3122

PUBLISHER: Kluwer Academic/Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:140466

ED Entered STN: 12 Apr 2002

AB By condensation of 2-chlorobenzaldehyde, cyanothioacetamide, and 2-phenacylbenzothiazole in the presence of piperidine, the authors have synthesized piperidinium 5-(benzothiazol-2-yl)-4-(2-chlorophenyl)-3-cyano-6-hydroxy-6-phenyl-1,4,5,6-tetrahydropyridine-2-thiolate, based on which the corresponding partially hydrogenated 2-alkylthiopyridines have been obtained.

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 444910-73-0P ~~444910-81-0P~~

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of partially hydrogenated benzothiazolypyridines)

IT 326183-63-5P 326916-27-2P 326916-28-3P  
326916-29-4P 326916-33-0P 326916-34-1P  
328108-89-0P 444910-78-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of partially hydrogenated benzothiazolypyridines)

IT 444910-81-0P

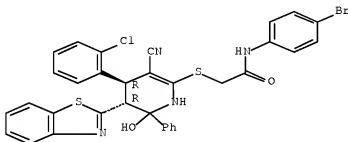
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of partially hydrogenated benzothiazolypyridines)

RN 444910-81-0 HCAPLUS

CN Acetamide, 2-[[[4R,5R)-5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4,5,6-tetrahydro-6-hydroxy-6-phenyl-2-pyridinyl]thio]-N-(4-bromophenyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



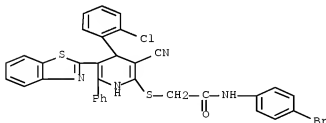
IT 326183-63-5P 326916-27-2P 326916-28-3P  
326916-29-4P 326916-33-0P 326916-34-1P  
328108-89-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of partially hydrogenated benzothiazolypyridines)

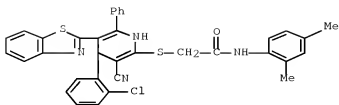
RN 326183-63-5 HCAPLUS

CN Acetamide, 2-[[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(4-bromophenyl)- (CA INDEX NAME)



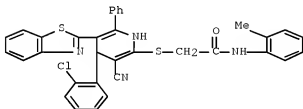
RN 326916-27-2 HCAPLUS

CN Acetamide, 2-[[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(2,4-dimethylphenyl)- (CA INDEX NAME)



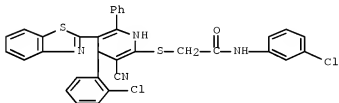
RN 326916-28-3 HCAPLUS

CN Acetamide, 2-[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(2-methylphenyl)- (CA INDEX NAME)



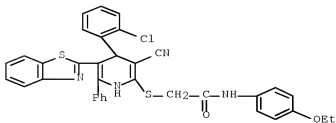
RN 326916-29-4 HCAPLUS

CN Acetamide, 2-[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(3-chlorophenyl)- (CA INDEX NAME)



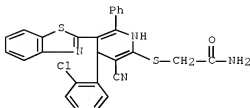
RN 326916-33-0 HCAPLUS

CN Acetamide, 2-[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(4-ethoxyphenyl)- (CA INDEX NAME)



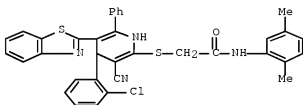
RN 326916-34-1 HCAPLUS

CN Acetamide, 2-[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



RN 328108-89-0 HCAPLUS

CN Acetamide, 2-[[5-(2-benzothiazolyl)-4-(2-chlorophenyl)-3-cyano-1,4-dihydro-6-phenyl-2-pyridinyl]thio]-N-(2,5-dimethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 18 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:29436 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 136:340606

TITLE: Convenient one-pot synthesis of 2-carbamoylmethylthio-3-cyano-4,6-diaryl-5-ethoxycarbonyl-1,4-dihydropyridines

AUTHOR(S): Krauze, A.; Sile, L.; Duburs, G.

CORPORATE SOURCE: Latvian Institute of Organic Synthesis, Riga, LV-1006, Latvia

SOURCE: Heterocyclic Communications ([2001](#)), 7(4), 375-380

CODEN: HCOMEX; ISSN: 0793-0283

PUBLISHER: Freund Publishing House Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 136:340606

ED Entered STN: 11 Jan 2002

AB 6-[(2-Amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2-(4-nitrophenyl)-4-phenyl-3-pyridinecarboxylic acid Et ester derivs. were obtained by a one-pot condensation of Et 4-nitrobenzoylacetate, an aromatic aldehyde and cyanothioacetamide in the presence of piperidine with subsequent alkylation and dehydroxylation. Thorpe's cyclization of 6-[(2-amino-2-oxoethyl)thio]-5-

cyano-1,4-dihydro-2-(4-nitrophenyl)-4-phenyl-3-pyridinecarboxylic acid Et ester derivs. gave 3-amino-2-(aminocarbonyl)-4-phenyl-6-(4-nitrophenyl)thieno[2,3-b]pyridine-5-carboxylic acid derivs.

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 27

IT 417709-57-0P 417709-58-1P 417709-59-2P

417709-60-5P 628685-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 3-amino-2-(aminocarbonyl)-6-(4-nitrophenyl)thieno[2,3-b]pyridine-5-carboxylates by cyclization of 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2-(4-nitrophenyl)-3-pyridinecarboxylates)

IT 417709-57-0P 417709-58-1P 417709-59-2P

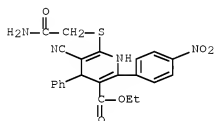
417709-60-5P 628685-15-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 3-amino-2-(aminocarbonyl)-6-(4-nitrophenyl)thieno[2,3-b]pyridine-5-carboxylates by cyclization of 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2-(4-nitrophenyl)-3-pyridinecarboxylates)

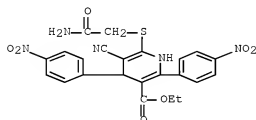
RN 417709-57-0 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2-(4-nitrophenyl)-4-phenyl-, ethyl ester (CA INDEX NAME)



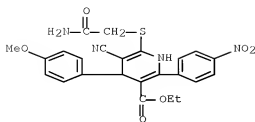
RN 417709-58-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-2,4-bis(4-nitrophenyl)-, ethyl ester (CA INDEX NAME)



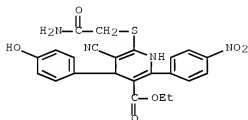
RN 417709-59-2 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-4-(4-methoxyphenyl)-2-(4-nitrophenyl)-, ethyl ester (CA INDEX NAME)



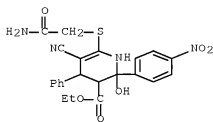
RN 417709-60-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,4-dihydro-4-(4-hydroxyphenyl)-2-(4-nitrophenyl)-, ethyl ester (CA INDEX NAME)



RN 628685-15-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-1,2,3,4-tetrahydro-2-hydroxy-2-(4-nitrophenyl)-4-phenyl-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 19 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:869720 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 137:169436

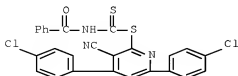
TITLE: Studies on 3-Cyano-4,6-di(p-chlorophenyl)-2(1H)pyridinethione



AUTHOR(S): Ahmed, Gamal A.; El-Salam, Naser A.  
 CORPORATE SOURCE: Faculty of Science, Chemistry Department, Zagazig University, Zagazig, Egypt  
 SOURCE: Journal of Saudi Chemical Society (2001), 5(2), 183-187  
 CODEN: JSCSFO; ISSN: 1319-6103  
 PUBLISHER: Saudi Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:169436  
 ED Entered STN: 02 Dec 2001  
 GI

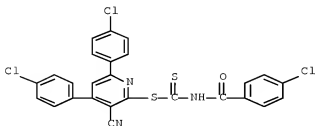
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

- AB Oxidation of pyridinethione derivative I (Ar = 4-ClC<sub>6</sub>H<sub>4</sub>) with Cl<sub>2</sub>/CH<sub>3</sub>COOH gave sulfonyl chloride derivs. II (R = SO<sub>2</sub>Cl) which on aminolysis gave 3-amino-4,6-di(p-chlorophenyl)isothiazolo[5,4-b]pyridine-1,1-dioxide (III), and 3-cyano-4,6-di(p-chlorophenyl)pyridine-2-sulfonamide [II; (R = SO<sub>2</sub>NH<sub>2</sub>)]. Reaction of I with hydrazine hydrate, aroylisothiocyanate, aroylhydrazines and chloroacetone gave pyrazolopyridine derivative IV, pyridinedithio-carbamate derivs. II (R = SC:SNHCOR1; R1 = Ph, 4-ClC<sub>6</sub>H<sub>4</sub>), triazolopyridine derivs. V and thienopyridine derivative VI [R2 = Me; (VII)] resp. Condensation of VII with aromatic aldehydes afforded the tricyclic compds. VIII (R1 = Ph, 2-ClC<sub>6</sub>H<sub>4</sub>). Hydrolysis of I gave 3-mercapto-4,6-di(p-chlorophenyl)-3-pyridine carboxamide which can be oxidized into 3-oxo-4,6-di(p-chlorophenyl)-2,3-dihydroisothiazolo[5,4-b]pyridine. Reaction of I with Et bromoacetate yields VI (R2 = OEt), which gave the potassium carboxylate on hydrolysis which cyclized to IX.
- CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
- IT 132602-49-4P 446311-91-7P 446311-92-8P 446311-93-9P 446311-95-1P  
 446311-96-2P 446311-97-3P 446311-99-5P 446312-00-1P  
 446312-01-2P 446312-02-3P 446312-03-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of cyano-di(p-chlorophenyl)pyridinethione and anal. of oxidation and cyclocondensation products)
- IT 446312-01-2P 446312-02-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of cyano-di(p-chlorophenyl)pyridinethione and anal. of oxidation and cyclocondensation products)
- RN 446312-01-2 HCAPLUS
- CN Carbamodithioic acid, benzoyl-, 4,6-bis(4-chlorophenyl)-3-cyano-2-pyridinyl ester (9CI) (CA INDEX NAME)



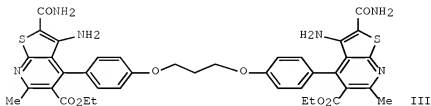
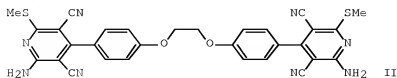
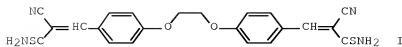
RN 446312-02-3 HCAPLUS

CN Carbamodithioic acid, (4-chlorobenzoyl)-, 4,6-bis(4-chlorophenyl)-3-cyano-2-pyridinyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 20 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2001:643807 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 135:357861  
 TITLE: Versatile starting materials for novel  
 1,6-bis(pyridin-4-ylphenoxy)alkanes, and their  
 corresponding bis(thieno[2,3-b]pyridin-4-ylphenoxy)  
 derivatives  
 AUTHOR(S): Abbas, Ashraf A.; Elneairy, Mohamed A. A.; Mabkhot,  
 Yehia N.  
 CORPORATE SOURCE: Chemistry Department, Faculty of Sciences, Cairo  
 University, Giza, Egypt  
 SOURCE: Journal of Chemical Research, Synopses (2001  
 ), (4), 124-126, 0411-0427  
 CODEN: JRPSDC; ISSN: 0308-2342  
 PUBLISHER: Science Reviews Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 135:357861  
 ED Entered STN: 04 Sep 2001  
 GI



AB A synthesis is described, starting from p-hydroxybenzaldehyde, of some new bis(activated styrene) derivs., e.g. I, and their conversion into novel bis(pyridin-4-yl) ethers, e.g. II, and bis(thieno[2,3-b]pyridine) derivs., e.g. III.

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 221178-83-2P 221178-96-7P 221179-00-6P 333959-07-2P 372187-08-1P  
 372187-09-2P 372187-10-5P 372187-11-6P 372187-12-7P 372187-13-8P  
 372187-16-1P 372187-17-2P 372187-18-3P 372187-21-8P 372187-23-0P  
 372187-26-3P 372187-28-5P 372187-47-8P 372187-49-0P  
 372187-51-4P 372187-52-5P 372187-56-9P 372187-58-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of bis(pyridinylphenoxy)- and

bis(thienopyridinylphenoxy)alkane

s)

IT 372187-51-4P 372187-52-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

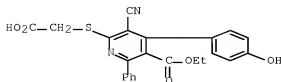
(preparation of bis(pyridinylphenoxy)- and

bis(thienopyridinylphenoxy)alkane

s)

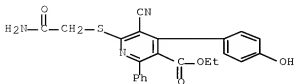
RN 372187-51-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(carboxymethyl)thio]-5-cyano-4-(4-hydroxyphenyl)-2-phenyl-, 3-ethyl ester (CA INDEX NAME)



RN 372187-52-5 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-4-(4-hydroxyphenyl)-2-phenyl-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 21 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:841385 HCAPLUS Full-text

DOCUMENT NUMBER: 134:131406

TITLE: Synthesis and properties of 3-cyano-4-(4-cyanophenyl)-1,4-dihydropyridine-2(3H)-thiones

AUTHOR(S): Krauze, A.; Duburs, G.

CORPORATE SOURCE: Latvian Institute of Organic Synthesis, Riga, LV-1006, Latvia

SOURCE: Chemistry of Heterocyclic Compounds (New York) (Translation of Khimiya Geterotsiklicheskikh Soedinenii) (2000), 36(6), 693-697  
CODEN: CHCCAL; ISSN: 0009-3122

PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 134:131406

ED Entered STN: 01 Dec 2000

AB Piperidinium 3-cyano-4-(4-cyanophenyl)-1,4-dihydropyridine-2(3H)-thiolates were obtained by the condensation of 1,3-dicarbonyl compds., 4-cyanobenzaldehyde, and cyanothioacetamide in the presence of an equimolar amount of piperidine. The acidification of these thiolates gave the corresponding 1,4-dihydropyridine-2(3H)-thiones and pyridine-2(1H)-thione. Alkylation of 1,4-dihydropyridine-2-thiolates or the reaction mixture of the three-carbon condensation using iodoacetamide gave 2-carbamoylmethylthio-1,4,5,6-tetrahydro- or 1,4-dihydropyridines, which were characterized by their conversion to 4,7-dihydrothieno[2,3-b]pyridines.

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 28

IT 322406-92-8P 322406-95-1P 322406-96-2P 322406-97-3P

~~322407-00-1P~~ 322407-01-2P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

IT 322406-90-6P 322406-94-0P ~~322406-98-4P~~ 322406-99-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

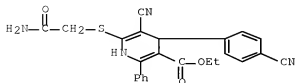
(preparation, reactions and properties of cyano(cyanophenyl)dihydropyridine-2(3H)-thione derivs.)

IT ~~322407-00-1P~~

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

RN 322407-00-1 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-4-(4-cyanophenyl)-1,4-dihydro-2-phenyl-, ethyl ester (CA INDEX NAME)



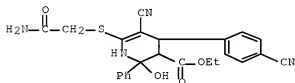
IT 322406-98-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation, reactions and properties of cyano(cyanophenyl)dihydropyridinet hione derivs.)

RN 322406-98-4 HCAPLUS

CN 3-Pyridinecarboxylic acid, 6-[(2-amino-2-oxoethyl)thio]-5-cyano-4-(4-cyanophenyl)-1,2,3,4-tetrahydro-2-hydroxy-2-phenyl-, ethyl ester (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 22 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:412595 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 133:207831

TITLE: Synthesis of substituted 4-hydroxy-1H-thieno[2,3-b;4,5-b']dipyridin-2-ones

AUTHOR(S): Rodinovskaya, L. A.; Shestopalov, A. M.

CORPORATE SOURCE: N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Moscow, 117913, Russia

SOURCE: Russian Chemical Bulletin (Translation of Izvestiya Akademii Nauk, Seriya Khimicheskaya) (2000), 49(2), 348-354

CODEN: RCBUEY; ISSN: 1066-5285

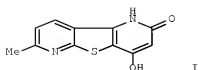
PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

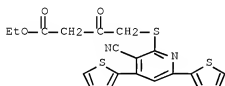
ED Entered STN: 21 Jun 2000

GI

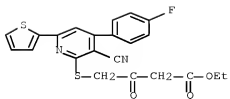


I

- AB Substituted 4-hydroxy-1H-thieno[2,3-b;4,5-b']dipyridin-2-ones, e.g., I, were prepared by reaction of 3-cyanopyridine-2(1H)-thiones with alkyl 4-chloroacetoacetates and by intramol. cyclization of alkyl 4-(2-pyridylthio)acetoacetates or alkyl 3-(3-aminothieno[2,3-b]pyridin-2-yl)-3-oxopropionates under the action of bases.
- CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))
- IT 290299-56-8P 290299-57-9P 290299-58-0P 290299-59-1P 290299-60-4P  
 290299-61-5P 290299-62-6P 290299-63-7P 290299-64-8P 290299-65-9P  
 290299-66-0P 290299-67-1P 290299-68-2P 290299-69-3P  
 290299-70-6P 290299-71-7P 290299-72-8P  
 290299-73-9P 290299-74-0P 290299-75-1P 290299-76-2P  
 290299-77-3P 290299-78-4P 290299-79-5P 290299-80-8P  
 290299-81-9P 290300-12-8P 290300-14-0P 290300-16-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of 4-hydroxy-1H-thieno[2,3-b;4,5-b']dipyridin-2-ones)
- IT 290299-69-3P 290299-70-6P 290299-71-7P  
 290299-72-8P 290299-75-1P 290299-76-2P  
 290299-77-3P 290299-78-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of 4-hydroxy-1H-thieno[2,3-b;4,5-b']dipyridin-2-ones)
- RN 290299-69-3 HCAPLUS
- CN Butanoic acid, 4-[(3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinylthio]-3-oxo-, ethyl ester (CA INDEX NAME)

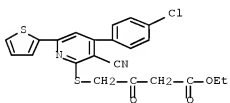


- RN 290299-70-6 HCAPLUS
- CN Butanoic acid, 4-[(3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinylthio]-3-oxo-, ethyl ester (CA INDEX NAME)



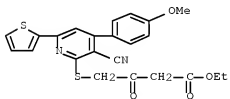
RN 290299-71-7 HCAPLUS

CN Butanoic acid, 4-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, ethyl ester (CA INDEX NAME)



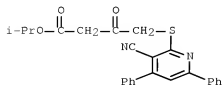
RN 290299-72-8 HCAPLUS

CN Butanoic acid, 4-[[3-cyano-4-(4-methoxyphenyl)-6-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, ethyl ester (CA INDEX NAME)



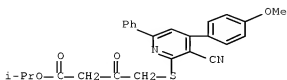
RN 290299-75-1 HCAPLUS

CN Butanoic acid, 4-[[3-cyano-4,6-diphenyl-2-pyridinyl]thio]-3-oxo-, 1-methylethyl ester (CA INDEX NAME)



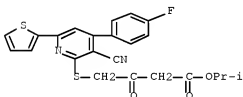
RN 290299-76-2 HCAPLUS

CN Butanoic acid, 4-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]-3-oxo-, 1-methylethyl ester (CA INDEX NAME)



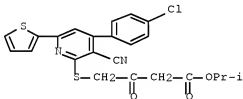
RN 290299-77-3 HCAPLUS

CN Butanoic acid, 4-[[3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, 1-methylethyl ester (CA INDEX NAME)



RN 290299-78-4 HCAPLUS

CN Butanoic acid, 4-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, 1-methylethyl ester (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 23 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:547305 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 131:295109

TITLE: Derivatives of 3-cyano-6-phenyl-4-(3'-pyridyl)-pyridine-2(1H)-thione and their neurotropic activity

AUTHOR(S): Krauze, Aivars; Germane, Skaidrite; Eberlins, Ojars; Sturms, Igors; Klusa, Vija; Duburs, Gunars

CORPORATE SOURCE: Latvian Institute of Organic Synthesis, Riga, LV-1006, Latvia

SOURCE: European Journal of Medicinal Chemistry (1999)



), 34(4), 301-310

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Editions Scientifiques et Medicales Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 31 Aug 1999

AB 3-Cyano-6-phenyl-4-(3'-pyridyl)pyridine-2(1H)-thione, the related 2,2'-bis-pyridyldisulfide, 2-alkylthiopyridines and 2-amino-thieno[2,3- b]pyridines were synthesized and their neurotropic activities were examined. Bispyridyldisulfide exhibited low toxicity (LD50 > 5000 mg/kg, ICR mice, i.p.) and selective antiamebic activity at the doses of 0.05-0.5 mg/kg p.o. This effect was significantly higher than that induced by Piracetam at 50 mg/kg.

CC 1-3 (Pharmacology)

Section cross-reference(s): 27

IT 247056-20-8P 247056-23-1P 247056-24-2P 247056-25-3P

247056-26-4P 247056-27-5P 247056-28-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation and neurotropic activity of 3-cyano-6-phenyl-4-(3'-pyridyl)-pyridine-2(1H)-thione derivs.)

IT 247056-22-0P 247056-30-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation and neurotropic activity of 3-cyano-6-phenyl-4-(3'-pyridyl)-pyridine-2(1H)-thione derivs.)

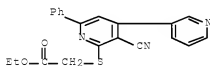
IT 247056-25-3P 247056-27-5P 247056-28-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation and neurotropic activity of 3-cyano-6-phenyl-4-(3'-pyridyl)-pyridine-2(1H)-thione derivs.)

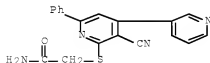
RN 247056-25-3 HCAPLUS

CN Acetic acid, 2-[(3'-cyano-6'-phenyl[3,4'-bipyridin]-2'-yl)thio]-, ethyl ester (CA INDEX NAME)

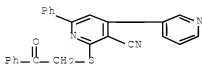


RN 247056-27-5 HCAPLUS

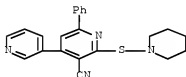
CN Acetamide, 2-[(3'-cyano-6'-phenyl[3,4'-bipyridin]-2'-yl)thio]- (CA INDEX NAME)



RN 247056-28-6 HCAPLUS  
 CN [3,4'-Bipyridine]-3'-carbonitrile, 2'-[(2-oxo-2-phenylethyl)thio]-6'-phenyl- (CA INDEX NAME)



IT 247056-22-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and neurotropic activity of 3-cyano-6-phenyl-4-(3'-pyridyl)-pyridine-2(1H)-thione derivs.)  
 RN 247056-22-0 HCAPLUS  
 CN [3,4'-Bipyridine]-3'-carbonitrile, 6'-phenyl-2'-(1-piperidinylthio)- (CA INDEX NAME)



REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 24 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:148064 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 130:252289

TITLE: Synthesis and biological screening of new 1,3-diphenylpyrazoles with different heterocyclic moieties at position 4

AUTHOR(S): El-Emary, T. I.; Bakhite, Etify A.

CORPORATE SOURCE: Chemistry Department, Faculty Science, Assiut

University, Assiut, 71516, Egypt

Pharmazie (1999), 54(2), 106-111

CODEN: PHARAT; ISSN: 0031-7144

Govt-Verlag Pharmazeutischer Verlag

PUBLISHER: Journal

DOCUMENT TYPE: English

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:252289

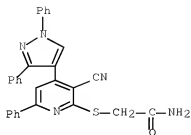
ED Entered STN: 08 Mar 1999

AB 1,3-Diphenyl-1H-pyrazole-4-carboxaldehyde (I) was reacted with barbituric acid, thiobarbituric acid, some activated nitriles, and/or PhAc to give the resp. condensation products. The reaction of I with N2H4.H2O, semicarbazide, or thiosemicarbazide afforded the corresponding azomethines. Most of the new compds. used as key intermediates in the synthesis subjected for different sequence reactions to produce of the title compds. The antibacterial and antifungal activity of some selected derivs. were evaluated.

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 10

- IT Antibacterial agents  
Fungicides  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT Heterocyclic compounds  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 221619-42-7P 221619-54-1P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 221619-36-9P 221619-39-2P 221619-48-3P 221619-55-2P 221619-56-3P  
221619-58-5P 221619-59-6P 221619-60-9P 221619-61-0P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 57-56-7, Semicarbazide 61-82-5, 3-Amino-s-triazole 62-56-6, Thiourea, reactions 67-52-7, Barbituric acid 70-11-1,  $\alpha$ -Bromoacetophenone 79-07-2, Chloroacetamide 79-19-6, Thiosemicarbazide 89-25-8, 3-Methyl-1-phenyl-2-pyrazolin-5-one 100-52-7, Benzaldehyde, reactions 105-39-5, Ethyl chloroacetate 105-56-6, Ethyl cyanoacetate 109-77-3, Malononitrile 141-97-9, Ethyl acetoacetate 302-01-2, Hydrazine, reactions 504-17-6, Thiobarbituric acid 614-16-4, Benzoylacetonitrile 5445-17-0, Methyl 2-bromopropionate 7357-70-2, Cyanothioacetamide 21487-45-6 144118-63-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 221619-37-0P 221619-38-1P 221619-40-5P 221619-46-1P 221619-49-4P  
221619-50-7P 221619-52-9P 221619-53-0P 221619-57-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 221619-35-8P 221619-41-6P 221619-43-8P 221619-44-9P 221619-45-0P  
221619-47-2P 221619-51-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- IT 221619-54-1P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)
- RN 221619-54-1 HCAPLUS
- CN Acetamide, 2-[[3-cyano-4-(1,3-diphenyl-1H-pyrazol-4-yl)-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)

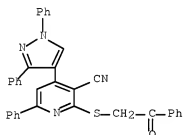


IT 221619-52-9P 221619-53-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and antimicrobial activity of pyrazoles with heterocyclic moieties)

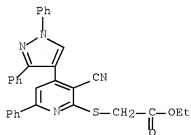
RN 221619-52-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(1,3-diphenyl-1H-pyrazol-4-yl)-2-[(2-oxo-2-phenylethyl)thio]-6-phenyl- (CA INDEX NAME)



RN 221619-53-0 HCAPLUS

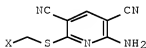
CN Acetic acid, 2-[[3-cyano-4-(1,3-diphenyl-1H-pyrazol-4-yl)-6-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



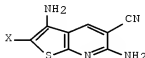
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 25 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:83128 HCAPLUS Full-text  
 DOCUMENT NUMBER: 130:223316  
 TITLE: Intramolecular cyclization of 2-(o-carboran-1-yl)methylthio-3-cyanopyridines in basic conditions  
 AUTHOR(S): Semioshkin, A. A.; Artemov, V. A.; Ivanov, V. L.; Ptashits, G. M.; Petrovskii, P. V.; Shestopalov, A. M.; Bregadze, V. I.; Litvinov, V. P.  
 CORPORATE SOURCE: A. N. Nesmeyanov Institute of Elementoorganic Chemistry, Russian Academy of Sciences, Moscow, 117813, Russia  
 SOURCE: Chemistry of Heterocyclic Compounds (New York) (Translation of Khimiya Geterotsiklicheskikh Soedinenii) (1996), 34(6), 688-691  
 CODEN: CHCCAL; ISSN: 0009-3122  
 PUBLISHER: Consultants Bureau  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 130:223316  
 ED Entered STN: 09 Feb 1999  
 GI

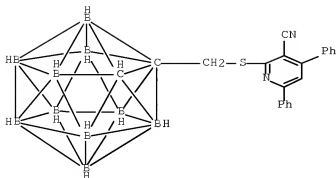


I



II

- AB Substituted 2-(o-carboran-1-yl)methylthio-3-cyanopyridines, e.g. I (X = o-carboran-1-yl), and -pyrimidines undergo Thorpe-Ziegler cyclization under the influence of KOH in DMF to give the corresponding thienopyridines, e.g. II (X = same), and thienopyrimidines. The reaction is complicated by a side reaction in which the closo-carborane nucleus is converted to a nido-system. The yield of thienopyridines containing a closo-carborane unit is increased by introduction of an acceptor substituent in the pyridine ring. Destruction of the closo-carborane nucleus is not observed with the pyrimidine derivs. The structures of the series of new carborane-containing thienopyridines and pyrimidines was confirmed by spectroscopic methods.  
 CC 29-4 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 28  
 IT 193203-25-7 193203-26-8 193203-29-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (intramol. cyclization of (carboranyl)methylthiocyanopyridines in basic conditions)  
 IT 193203-26-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (intramol. cyclization of (carboranyl)methylthiocyanopyridines in basic conditions)  
 RN 193203-26-8 HCAPLUS  
 CN 3-Pyridinecarbonitrile, 2-[(1,2-dicarbadodecaboran(12)-1-ylmethyl)thio]-4,6-diphenyl- (9CI) (CA INDEX NAME)



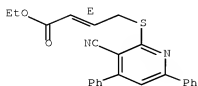
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib ed abs hitind hitstr 26-49

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L57 ANSWER 26 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:617973 HCAPLUS Full-text  
 DOCUMENT NUMBER: 129:302574  
 ORIGINAL REFERENCE NO.: 129:61723a,61726a  
 TITLE: Ethyl 4-bromocrotonate in the synthesis of  
 pyrido[3',2':4,5]thieno[3,2-d]pyridin-2(1H)-ones  
 AUTHOR(S): Ivanov, V. L.; Artemov, V. A.; Shestopalov, A. M.;  
 Litvinov, V. P.  
 CORPORATE SOURCE: N. D. Zelinskii Institute of Organic Chemistry,  
 Russian Academy of Sciences, Moscow, 119913, Russia  
 SOURCE: Chemistry of Heterocyclic Compounds (New  
 York)(Translation of Khimiya Geterotsiklicheskikh  
 Soedinenii) (1998), 34(2), 237-240  
 CODEN: CHCCAL; ISSN: 0009-3122  
 PUBLISHER: Consultants Bureau  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 30 Sep 1998  
 AB Pyrido[3',2':4,5]thieno[3,2-d]pyridin-2(1H)-ones were synthesized from 3-  
 cyano-2(1H)-pyridinethiones and Et 4-bromocrotonate.  
 CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT 214423-11-7P ~~214423-14-0P~~ 214423-15-1P 214423-16-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of pyridothienopyridinone and thienopyridines)  
 IT ~~214423-14-0P~~  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of pyridothienopyridinone and thienopyridines)  
 RN 214423-14-0 HCAPLUS  
 CN 2-Butenoic acid, 4-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, ethyl ester,  
 (2E)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 27 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:269236 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 133:58731

TITLE: Reactions of styryl thienyl ketone, styryl furyl ketone with thiocynoacetamide: synthesis of several new pyridines, thieno[2,3-b]pyridines, pyrido[2',3':4,5]thieno[3,2-c]pyridazines and pyrido[3',2':4,5]thieno[3,2-d]pyrimidinone derivatives  
Attaby, Fawzy A.

AUTHOR(S):  
CORPORATE SOURCE: Department of chemistry, Faculty of Science, Cairo University, Giza, Egypt

SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (1998), 139, 1-12  
CODEN: PSSLEC; ISSN: 1042-6507

PUBLISHER: Gordon & Breach Science Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:58731

ED Entered STN: 26 Apr 2000

AB Styryl thienyl ketone and styryl furyl ketone reacted with thiocynoacetamide to give the dihydropyridinethiones, which were used as starting material for the synthesis of several heterocyclic compds. Reaction with several halo esters, halo ketones, and chloroacetamide gave 2-S-alkoxypyridines, thieno[2,3-c]pyridines, pyrido[2',3':4,5]thieno[3,2-c]pyridazines, and pyrido[2',3':-4,5]thieno[2,3-d]pyrimidinones.

CC 28-1 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 126888-03-7P 131841-89-9P 188782-65-2P 276671-06-8P 276671-07-9P

276671-08-0P 276671-09-1P 276671-10-4P 276671-11-5P

[276671-14-8P](#) [276671-15-9P](#) [276671-16-0P](#)

[276671-17-1P](#) [276671-19-3P](#) [276671-20-6P](#)

[276671-21-7P](#) [276671-26-4P](#) [276671-29-5P](#)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyridines, thieno[2,3-b]pyridines, pyrido[2',3':4,5]thieno[3,2-c]pyridazines and pyrido[3',2':4,5]thieno[3,2-d]pyrimidinones)

IT [276671-14-8P](#) [276671-15-9P](#) [276671-16-0P](#)

[276671-17-1P](#) [276671-19-3P](#) [276671-20-6P](#)

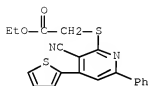
[276671-21-7P](#) [276671-26-4P](#) [276671-29-5P](#)

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of pyridines, thieno[2,3-b]pyridines, pyrido[2',3':4,5]thieno[3,2-c]pyridazines and pyrido[3',2':4,5]thieno[3,2-d]pyrimidinones)

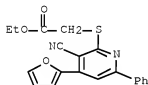
RN 276671-14-8 HCAPLUS

CN Acetic acid, 2-[[3-cyano-6-phenyl-4-(2-thienyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



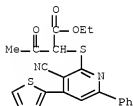
RN 276671-15-9 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4-(2-furanyl)-6-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



RN 276671-16-0 HCAPLUS

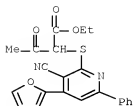
CN Butanoic acid, 2-[[3-cyano-6-phenyl-4-(2-thienyl)-2-pyridinyl]thio]-3-oxo-, ethyl ester (CA INDEX NAME)



RN 276671-17-1 HCAPLUS

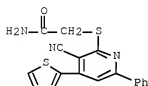
CN Butanoic acid, 2-[[3-cyano-4-(2-furanyl)-6-phenyl-2-pyridinyl]thio]-3-oxo-, ethyl ester (CA INDEX NAME)





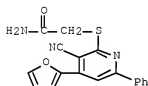
RN 276671-19-3 HCAPLUS

CN Acetamide, 2-[[3-cyano-6-phenyl-4-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



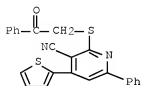
RN 276671-20-6 HCAPLUS

CN Acetamide, 2-[[3-cyano-4-(2-furanyl)-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



RN 276671-28-4 HCAPLUS

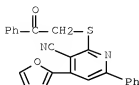
CN 3-Pyridinecarbonitrile, 2-[(2-oxo-2-phenylethyl)thio]-6-phenyl-4-(2-thienyl)- (CA INDEX NAME)



RN 276671-29-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(2-furanyl)-2-[(2-oxo-2-phenylethyl)thio]-6-

phenyl- (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 28 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:407487 HCAPLUS Full-text

DOCUMENT NUMBER: 127:135826

ORIGINAL REFERENCE NO.: 127:26209a,26212a

TITLE: Nucleophilic substitution at  $\alpha$ -methylene group attached to o-carboranes. Synthesis of carboranymethylthiopyridines

AUTHOR(S): Semioshkin, Andrei A.; Ptashits, Gennadii M.; Ivanov, Vladimir L.; Artyomov, Vasilii, A.; Shestopalov, Anatolii M.; Bregadze, Vladimir; Litvinov, Viktor P. A.N.Nesmeyanov Inst. Organoelement Compds., Moscow, 117813, Russia

SOURCE: Tetrahedron (1997), 53(23), 7911-7916  
CODEN: TETRA; ISSN: 0040-4020

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 127:135826

ED Entered STN: 02 Jul 1997

AB The SN2-type substitution on bromomethyl-o-carborane was never reported earlier. It was found that pyridine-2(1H)-thiones react with bromomethyl-o-carborane in the presence of triethylamine. This reaction leads to the o-carboranymethylthiopyridines with high yields. A series of the novel o-carboranymethylthiopyridines was synthesized and characterized by various spectral methods.

CC 29-4 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 27

IT 193203-25-7P 193203-26-8P 193203-28-0P 193203-29-1P

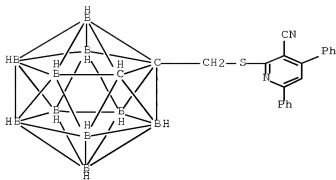
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

IT 193203-26-8P 193203-28-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

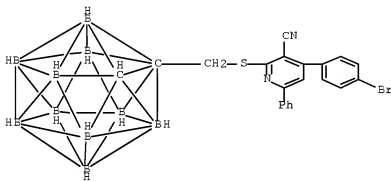
RN 193203-26-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(1,2-dicarbadodecaboran(12)-1-ylmethyl)thio]-4,6-diphenyl- (9CI) (CA INDEX NAME)



RN 193203-28-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(4-bromophenyl)-2-[(1,2-dicarbadodecaboran(12)-1-ylmethyl)thio]-6-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 29 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:19324 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 128:114920

ORIGINAL REFERENCE NO.: 128:22533a, 22536a

TITLE: N-Acetylchloroacetamide in the synthesis of functionally substituted pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4(3H)-ones

AUTHOR(S): Ivanov, V. L.; Artemov, V. A.; Shestopalov, A. M.; Litvinov, V. P.

CORPORATE SOURCE: Russian Academy Sci., N. D. Zelinskii Inst. Org. Chem., Moscow, 117913, Russia

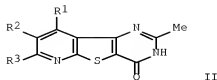
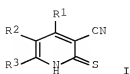
SOURCE: Chemistry of Heterocyclic Compounds (New York) (Translation of Khimiya Geterotsiklicheskih Soedinenii) (1997), 33(6), 732-735  
CODEN: CHCCAL; ISSN: 0009-3122

PUBLISHER: Consultants Bureau

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 15 Jan 1998  
GI



AB 3-Cyano-2(1H)-pyridinethiones I [R1 = CF3, Ph, H, Me, R2 = H, R3 = Ph, Me, R2R3 = (CH2)6, (CH2)3] react with N-acetylchloroacetamide in ethanol in the presence of KOH to give pyrido[3',2':4,5]thieno[3,2-d]pyrimidin-4(3H)-ones II.

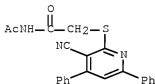
CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 201681-20-1P 201681-21-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of pyridothienopyrimidinones by cyclocondensation of acetylchloroacetamide with cyanopyridinethiones)

IT 201681-21-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of pyridothienopyrimidinones by cyclocondensation of acetylchloroacetamide with cyanopyridinethiones)

RN 201681-21-2 HCAPLUS

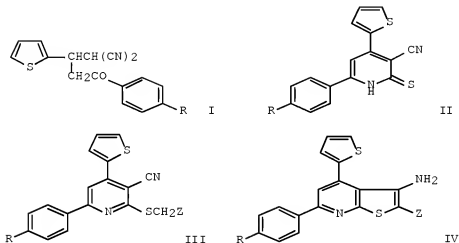
CN Acetamide, N-acetyl-2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L57 ANSWER 30 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1997:263388 HCAPLUS Full-text  
DOCUMENT NUMBER: 126:263993  
ORIGINAL REFERENCE NO.: 126:51129a,51132a  
TITLE: Cyclization reaction of nitriles. LVI. Synthesis and conversion of substituted 6-aryl-4-(2-thienyl)-3-cyanopyridine-2(1H)-thiones  
Sharanin, Yu. A.; Matrosova, S. V.  
CORPORATE SOURCE: Vost.-Ukr. Univ., Luhansk, 348011, Ukraine  
SOURCE: Zhurnal Organicheskoi Khimii (1996), 32(8), 1251-1255

PUBLISHER: Nauka  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 126:263993  
ED Entered SIN: 24 Apr 1997  
GI



AB Reaction of dinitriles I (R = H, Cl) with S8/morpholine gave the title compds. (II), which reacted with halomethyl compds. to give S-alkylated derivs. (III; R = H, Cl; Z = CONH2, COOEt, CPh). III were cyclized in the presence of NaOEt to give thienopyridines (IV).

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 28

IT 188782-56-1P 188782-57-2P 188782-58-3P

188782-59-4P 188782-61-6P 188782-63-0P

188782-74-3P 188782-75-4P 188782-76-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

IT 188782-56-1P 188782-57-2P 188782-58-3P

188782-59-4P 188782-61-6P 188782-63-0P

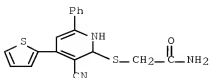
188782-74-3P 188782-75-4P 188782-76-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

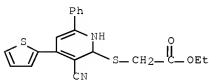
RN 188782-56-1 HCAPLUS

CN Acetamide, 2-[[3-cyano-1,2-dihydro-6-phenyl-4-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



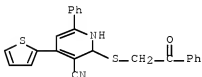
RN 188782-57-2 HCAPLUS

CN Acetic acid, 2-[[3-cyano-1,2-dihydro-6-phenyl-4-(2-thienyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



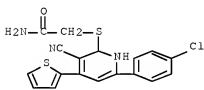
RN 188782-58-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 1,2-dihydro-2-[(2-oxo-2-phenylethyl)thio]-6-phenyl-4-(2-thienyl)- (CA INDEX NAME)



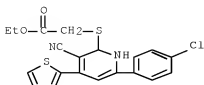
RN 188782-59-4 HCAPLUS

CN Acetamide, 2-[[6-(4-chlorophenyl)-3-cyano-1,2-dihydro-4-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



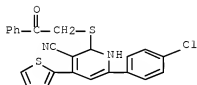
RN 188782-61-8 HCAPLUS

CN Acetic acid, 2-[[6-(4-chlorophenyl)-3-cyano-1,2-dihydro-4-(2-thienyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



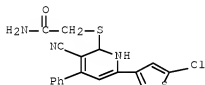
RN 188782-63-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-(4-chlorophenyl)-1,2-dihydro-2-[(2-oxo-2-phenylethyl)thio]-4-(2-thienyl)- (CA INDEX NAME)



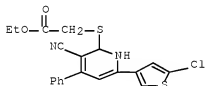
RN 188782-74-3 HCAPLUS

CN Acetamide, 2-[[6-(5-chloro-3-thienyl)-3-cyano-1,2-dihydro-4-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



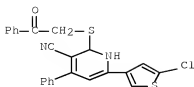
RN 188782-75-4 HCAPLUS

CN Acetic acid, 2-[[6-(5-chloro-3-thienyl)-3-cyano-1,2-dihydro-4-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)

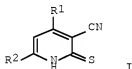


RN 188782-76-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-(5-chloro-3-thienyl)-1,2-dihydro-2-[(2-oxo-2-phenylethyl)thio]-4-phenyl- (CA INDEX NAME)

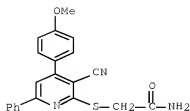


L57 ANSWER 31 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1997:279011 HCAPLUS Full-text  
 DOCUMENT NUMBER: 126:293254  
 ORIGINAL REFERENCE NO.: 126:56789a,56792a  
 TITLE: Synthesis and reactions of 3-cyano-6-cyclopropyl-2(1H)-pyridinethiones  
 AUTHOR(S): Khoroshilov, G. E.; Sharanin, Yu. A.  
 CORPORATE SOURCE: Lugansk Pedagog. Inst., Luhansk, Ukraine  
 SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition) (1996), 62(9-10), 38-44  
 CODEN: UKZHAU; ISSN: 0041-6045  
 PUBLISHER: Institut Obshchei i Neorganicheskoi Khimii NAN Ukrainy  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 126:293254  
 ED Entered STN: 01 May 1997  
 GI



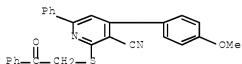
AB The title compds. [I; R1 = (un)substituted phenyl; R2 = cyclopropyl, Ph] were prepared (1) by reaction of oxo dinitriles with S8 and (2) by reaction of butadienedicarbonitriles with cyanothioacetamide. S-alkylation of I and subsequent cyclization to thienopyridines were carried out.  
 CC 27-16 (Heterocyclic Compounds (One Hetero Atom))  
 Section cross-reference(s): 28  
 IT 94360-69-7P 189132-37-4P 189132-38-5P 189132-39-6P  
 189132-40-9P 189132-41-0P 189132-42-1P 189132-43-2P 189132-44-3P  
 189132-45-4P 189132-46-5P 189132-47-6P 189132-48-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclization of)  
 IT 94360-69-7P 189132-48-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclization of)  
 RN 94360-69-7 HCAPLUS  
 CN Acetamide, 2-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)





RN 189132-48-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 4-(4-methoxyphenyl)-2-[(2-oxo-2-phenylethyl)thio]-6-phenyl- (CA INDEX NAME)



L57 ANSWER 32 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:694430 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 123:313812

ORIGINAL REFERENCE NO.: 123:56255a,56258a

TITLE: Synthesis of 3,5-disubstituted pyridines as [antimicrobial](#) agents

AUTHOR(S): Attia, A.; Abo-Ghaila, M. H.; El-Salam, O. I. Abd

CORPORATE SOURCE: Dep. Appl. Org. Chem., Natl. Res. Cent., Cairo, Egypt

SOURCE: Pharmazie (1995), 50(7), 455-9

CODEN: PHARAT; ISSN: 0031-7144

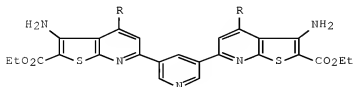
PUBLISHER: Govi-Verlag Pharmazeutischer Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 22 Jul 1995

GI



II

AB 3,5-Diacetylpyridine (I) reacted with hydroxylamine hydrochloride, thiourea or phenylhydrazine affording the corresponding carbaldoximo- aminothiazolyl- and

phenylhydrazono- derivs., resp. Cyclization of phenylhydrazono derivative of I by the action of polyphosphoric acid or thionyl chloride afforded the corresponding indolyl- and thiadiazolyl- derivs. Also prepared were thieno[2,3-b]pyridines II (R = 2-thienyl, 4-MeOC6H4). Some of the obtained compds. showed remarkable antimicrobial activity comparable to oxytetracycline.

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 10

IT Bactericides, Disinfectants, and Antiseptics

Fungicides and Fungistats

(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

IT 39081-53-3P 170160-78-8P 170160-79-9P 170160-80-2P 170160-84-6P  
170160-85-7P 170160-86-8P 170160-87-9P 170160-88-0P 170160-89-1P  
170160-90-4P 170160-91-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

IT 102547-82-0P 170160-74-4P 170160-76-6P 170160-77-7P 170160-81-3P  
170160-82-4P 170160-83-5P 170160-92-6P 170160-93-7P 170160-94-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

IT 98-03-3, 2-Thiophenecarboxaldehyde 100-52-7, Benzaldehyde, reactions  
105-39-5, Ethyl 2-chloroacetate 123-11-5, p-Methoxybenzaldehyde,  
reactions 500-22-1, 3-Pyridinecarboxaldehyde 623-51-8, Ethyl  
2-mercaptoacetate 1199-61-7, 3,5-Diacetylpyridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

IT 170160-75-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

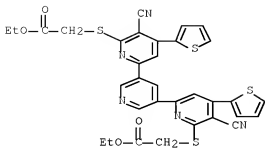
IT 170160-90-4P 170160-91-5P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

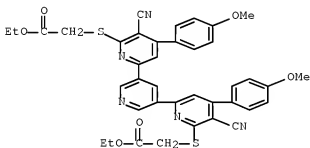
(synthesis of 3,5-disubstituted pyridines as antimicrobial agents)

RN 170160-90-4 HCAPLUS

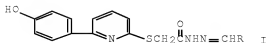
CN Acetic acid, 2,2'-[(5,5''-dicyano-4,4''-di-2-thienyl[2,3':5',2''-terpyridine]-6,6''-diyl)bis(thio)]bis-, diethyl ester (9CI) (CA INDEX NAME)



RN 170160-91-5 HCAPLUS  
 CN Acetic acid, 2,2'-[[5,5''-dicyano-4,4''-bis(4-methoxyphenyl)[2,3':5',2''-terpyridine]-6,6''-diyl]bis(thio)]bis-, diethyl ester (9CI) (CA INDEX NAME)



L57 ANSWER 33 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1994:557485 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 121:157485  
 ORIGINAL REFERENCE NO.: 121:28509a,28512a  
 TITLE: Synthesis of some 2-(substituted thio)pyridines and thieno[2,3-b]pyridines  
 Abdel-Monem, Maisa I.  
 AUTHOR(S):  
 CORPORATE SOURCE: Fac. Sci., Assiut Univ., Assiut, 71516, Egypt  
 SOURCE: Collection of Czechoslovak Chemical Communications (1994), 59(4), 978-86  
 CODEN: CCCCAK; ISSN: 0010-0765  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 121:157485  
 ED Entered SIN: 01 Oct 1994  
 GI



AB The title compds., 2-pyridinethiol derivs., such as I (R = aryl) were prepared  
 CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

IT 157222-84-9P 157222-85-0P 157222-86-1P 157222-87-2P 157222-88-3P  
 157222-89-4P 157222-90-7P 157222-91-8P 157222-92-9P 157222-93-0P

157222-94-1P 157222-95-2P 157222-96-3P

157222-97-4P 157222-98-5P 157222-99-6P

157223-00-2P 157223-01-3P 157223-02-4P 157223-03-5P

157223-04-6P 157223-05-7P 157223-06-8P 157223-07-9P

157223-08-0P 157223-09-1P 157223-10-4P

157223-11-5P 157223-12-6P 157223-13-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

IT 157222-94-1P 157222-95-2P 157222-96-3P

157222-97-4P 157222-98-5P 157222-99-6P

157223-00-2P 157223-01-3P 157223-02-4P

157223-03-5P 157223-04-6P 157223-05-7P

157223-06-8P 157223-07-9P 157223-08-0P

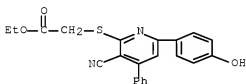
157223-09-1P 157223-10-4P 157223-11-5P

157223-12-6P 157223-13-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

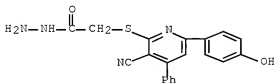
RN 157222-94-1 HCAPLUS

CN Acetic acid, 2-[[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-,  
 ethyl ester (CA INDEX NAME)



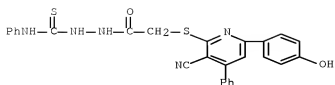
RN 157222-95-2 HCAPLUS

CN Acetic acid, 2-[[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-,  
 hydrazide (CA INDEX NAME)



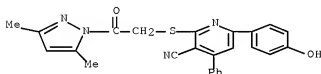
RN 157222-96-3 HCAPLUS

CN Acetic acid, 2-[[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-,  
 2-[(phenylamino)thioxomethyl]hydrazide (CA INDEX NAME)



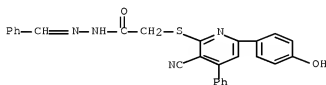
RN 157222-97-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio]-6-(4-hydroxyphenyl)-4-phenyl- (CA INDEX NAME)



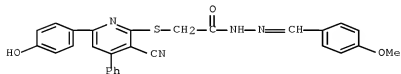
RN 157222-98-5 HCAPLUS

CN Acetic acid, 2-[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-, 2-(phenylmethylene)hydrazide (CA INDEX NAME)



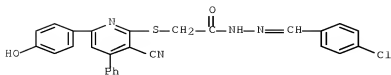
RN 157222-99-6 HCAPLUS

CN Acetic acid, 2-[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-, 2-[(4-chlorophenyl)methylene]hydrazide (CA INDEX NAME)



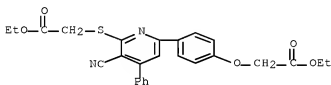
RN 157223-00-2 HCAPLUS

CN Acetic acid, 2-[[3-cyano-6-(4-hydroxyphenyl)-4-phenyl-2-pyridinyl]thio]-, 2-[(4-chlorophenyl)methylene]hydrazide (CA INDEX NAME)



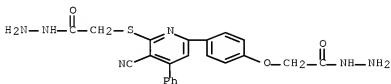
RN 157223-07-9 HCAPLUS

CN Acetic acid, [[3-cyano-6-[4-(2-ethoxy-2-oxoethoxy)phenyl]-4-phenyl-2-pyridinyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



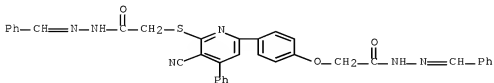
RN 157223-08-0 HCAPLUS

CN Acetic acid, [[3-cyano-6-[4-(2-hydrazino-2-oxoethoxy)phenyl]-4-phenyl-2-pyridinyl]thio]-, hydrazide (9CI) (CA INDEX NAME)



RN 157223-10-4 HCAPLUS

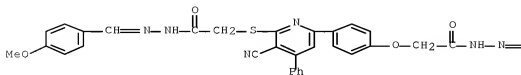
CN Acetic acid, [[3-cyano-6-[4-[2-oxo-2-[(phenylmethylene)hydrazino]ethoxy]phenyl]-4-phenyl-2-pyridinyl]thio]-, (phenylmethylene)hydrazide (9CI) (CA INDEX NAME)



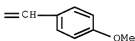
RN 157223-11-5 HCAPLUS

CN Acetic acid, [[2-cyano-6-[4-[2-[[4-methoxyphenyl)methylene]hydrazino]-2-oxoethoxy]phenyl]-4-phenyl-2-pyridinyl]thio]-, [(4-methoxyphenyl)methylene]hydrazide (9CI)

PAGE 1-A



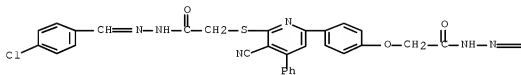
PAGE 1-B



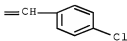
RN 157223-12-6 HCAPLUS

CN Acetic acid, [[6-[4-[2-[[4-(4-chlorophenyl)methylene]hydrazino]-2-oxoethoxy]phenyl]-3-cyano-4-phenyl-2-pyridinyl]thio]-, [(4-chlorophenyl)methylene]hydrazide (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



L57 ANSWER 34 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:273276 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 122:105015

ORIGINAL REFERENCE NO.: 122:19759a,19762a

TITLE: Crystal structure, spectroscopic study, molecular modeling, and in vitro [antimicrobial](#)

activity testing of 2,2'-thiobis[4,6-diphenylpyridine-3-carbonitrile]

AUTHOR(S): Victory, P.; Busquets, N.; Borrell, J. I.; Sanchez, I.; Teixido, J.; Serra, B.; Alvarez-Larena, A.; Piniella, J. F.; Guinea, J.; Garcia, J.

CORPORATE SOURCE: Dep. Quim. Org., Univ. Ramon Llull, Barcelona, E-08017, Spain

SOURCE: Journal of Chemical Crystallography (1994), 24(10), 675-9  
CODEN: JCCYEV; ISSN: 1074-1542

PUBLISHER: Plenum

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 05 Jan 1995

AB X-ray anal. of the title compound showed that the mol. adopts a twisted conformation. AML and PM3 calcns. agreed with the crystal structure. Mass, IR, UV, and <sup>1</sup>H and <sup>13</sup>C NMR data were also reported. In vitro tests indicated an absence of antimicrobial activity.

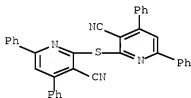
CC 22-3 (Physical Organic Chemistry)  
Section cross-reference(s): 75

IT 160598-76-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation, spectra, modeling and x-ray anal. of)

IT 160598-76-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation, spectra, modeling and x-ray anal. of)

RN 160598-76-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 2,2'-thiobis[4,6-diphenyl- (CA INDEX NAME)



L57 ANSWER 35 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:39653 HCAPLUS Full-text

DOCUMENT NUMBER: 122:31630

ORIGINAL REFERENCE NO.: 122:6251a,6254a

TITLE: Regioselective synthesis of substituted thieno(selenopheno)[2,3-b]pyridines and pyrido[3',2':4,5]thieno(selenopheno)[3,2-d]pyrimidines based on 3-cyanopyridine-2(1H)-thiones, -selenones and N-cyanochloroacetamide

AUTHOR(S): Artemov, V. A.; Rodinovskaya, L. A.; Shestopalov, A. M.; Litvinov, V. P.

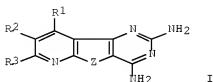
CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, 117913, Russia

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1994), (1), 122-32  
CODEN: KGSSAQ; ISSN: 0132-6244

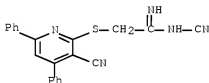
DOCUMENT TYPE: Journal



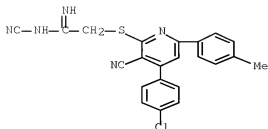
LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 122:31630  
 ED Entered STN: 08 Nov 1994  
 GI



- AB 3-Cyanopyridine-2(1H)-thiones or -selenones undergo heteroannulation with N-cyanochloroacetamides to give thieno(selenopheno)[2,3-b]pyridines and 2,4-diaminopyrido[3',2':4,5]thieno(selenopheno)[3,2-d]pyrimidines (e.g., I; Z = S, Se; R1 = H, Me, Ph, 4-ClC6H4, 4-BrC6H4, CF3, 3-pyridyl; R2 = H, Me,; R3 = Me, Ph, 4-tolyl; R2R3 = (CH2)4), which in turn were converted into compds. containing triazine, aminopyrimidine, and pyrimidinedione ring systems.
- CC 29-8 (Organometallic and Organometalloidal Compounds)  
 Section cross-reference(s): 28
- IT 154049-79-3P 154049-80-6P 154049-81-7P 159717-90-5P  
 159717-91-6P 159717-92-7P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of substituted amino(aminocyanaminomethyl)thienopyridines)
- IT 154049-79-3P 154049-80-6P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of substituted amino(aminocyanaminomethyl)thienopyridines)
- RN 154049-79-3 HCAPLUS
- CN Ethanimidamide, N-cyano-2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



- RN 154049-80-6 HCAPLUS
- CN Ethanimidamide, 2-[[4-(4-chlorophenyl)-3-cyano-6-(4-methylphenyl)-2-pyridinyl]thio]-N-cyano- (CA INDEX NAME)



L57 ANSWER 36 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:6060 HCAPLUS Full-text

DOCUMENT NUMBER: 124:176030

ORIGINAL REFERENCE NO.: 124:32643a,32646a

TITLE: Synthesis of some heterocycles related to pyridine

AUTHOR(S): Ahmed, Raga A.

CORPORATE SOURCE: Faculty of Science, Assiut University, Assiut, Egypt

SOURCE: Bulletin of the Faculty of Science, Assiut University,

B: Chemistry (1994), 23(2), 11-18

CODEN: BFSAE6; ISSN: 1010-2671

PUBLISHER: Assiut University

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 04 Jan 1996

AB Reaction of 3-cyano-4,6-diphenyl-2-pyridinethione with halo methylene compds. gave 4,6-diphenyl-2-[[diacyl)methyl]thio]-3- pyridinecarbonitriles. Cyclocondensation of the latter with hydrazine, hydroxylamine, urea and thiourea gave heterocyclic compds.

CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 174074-02-3P 174074-03-4P 174074-04-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of [(heterocyclyl)thio]pyridinecarbonitriles)

IT 174074-05-6P 174074-06-7P 174074-07-8P

174074-08-9P 174074-09-0P 174074-10-3P 174074-11-4P

174074-12-5P 174074-13-6P 174074-14-7P

174074-15-8P 174074-16-9P 174074-17-0P

174074-18-1P 174074-19-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of [(heterocyclyl)thio]pyridinecarbonitriles)

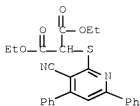
IT 174074-02-3P 174074-04-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of [(heterocyclyl)thio]pyridinecarbonitriles)

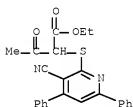
RN 174074-02-3 HCAPLUS

CN Propanedioic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, 1,3-diethyl ester (CA INDEX NAME)



RN 174074-04-5 HCAPLUS

CN Butanoic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-3-oxo-, ethyl ester (CA INDEX NAME)



IT 174074-05-6P 174074-06-7P 174074-07-8P

174074-10-3P 174074-12-5P 174074-14-7P

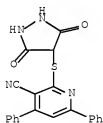
174074-15-8P 174074-17-0P 174074-18-1P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of [(heterocyclyl)thio]pyridinecarbonitriles)

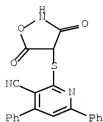
RN 174074-05-6 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dioxo-4-pyrazolidinyl)thio]-4,6-diphenyl- (CA INDEX NAME)



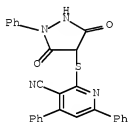
RN 174074-06-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dioxo-4-isoxazolidinyl)thio]-4,6-diphenyl- (CA INDEX NAME)



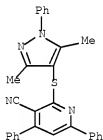
RN 174074-07-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dioxo-1-phenyl-4-pyrazolidinyl)thio]-4,6-diphenyl- (CA INDEX NAME)



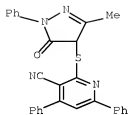
RN 174074-10-3 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dimethyl-1-phenyl-1H-pyrazol-4-yl)thio]-4,6-diphenyl- (CA INDEX NAME)



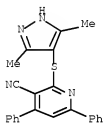
RN 174074-12-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(4,5-dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)thio]-4,6-diphenyl- (CA INDEX NAME)



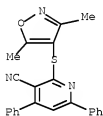
RN 174074-14-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dimethyl-1H-pyrazol-4-yl)thio]-4,6-diphenyl- (CA INDEX NAME)



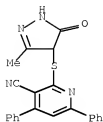
RN 174074-15-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(3,5-dimethyl-4-isoxazolyl)thio]-4,6-diphenyl- (CA INDEX NAME)



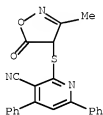
RN 174074-17-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl)thio]-4,6-diphenyl- (CA INDEX NAME)



RN 174074-18-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(4,5-dihydro-3-methyl-5-oxo-4-isoxazolyl)thio]-4,6-diphenyl- (CA INDEX NAME)



L57 ANSWER 37 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1994:217590 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 120:217590

ORIGINAL REFERENCE NO.: 120:38641a,38644a

TITLE: Synthesis and some reactions of thieno[2,3-d]pyrimidines and S-substituted mercaptopyridines  
 AUTHOR(S): Abdel Hafez, Ali A.; Ahmed, Raga A.; Geies, Ahmed A.; El-Kashef, Hussein S.

CORPORATE SOURCE: Fac. Sci., Assiut Univ., Assiut, Egypt

SOURCE: Collection of Czechoslovak Chemical Communications (1993), 58(8), 1931-6

CODEN: CCCCAK; ISSN: 0010-0765

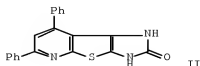
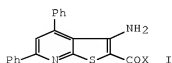
DOCUMENT TYPE: Journal

LANGUAGE: English

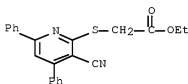
OTHER SOURCE(S): CASREACT 120:217590

ED Entered STN: 30 Apr 1994

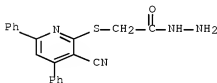
GI



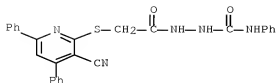
- AB The title compds., hydrazides I [X = (arylmethyleneamino)amino], and analogs thereof, such as 4,6-diphenyl-1H-imidazo[4',5':4,5]thieno[2,3-b]pyridin-2(3H)-one (II), were prepared
- CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))
- IT 94360-72-2 153705-69-2 153705-70-5 153705-71-6  
153705-72-7 153705-73-8 153705-74-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation as intermediate for thieno[2,3-d]pyrimidinecarboxylic acid hydrazide)
- IT 153705-75-0P 153705-76-1P 153705-77-2P 153705-78-3P  
153705-79-4P 153705-80-7P 153705-81-8P 153705-82-9P  
 153705-83-0P 153705-84-1P 153705-85-2P 153705-86-3P 153705-87-4P  
 153705-88-5P 153705-89-6P 153705-90-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)
- IT 94360-72-2 153705-69-2 153705-71-6  
153705-72-7 153705-73-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation as intermediate for thieno[2,3-d]pyrimidinecarboxylic acid hydrazide)
- RN 94360-72-2 HCAPLUS
- CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, ethyl ester (CA INDEX NAME)



- RN 153705-69-2 HCAPLUS
- CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, hydrazide (CA INDEX NAME)

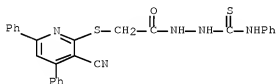


- RN 153705-71-6 HCAPLUS
- CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, 2-[(phenylamino)carbonyl]hydrazide (CA INDEX NAME)



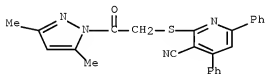
RN 153705-72-7 HCAPLUS

CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-,  
2-[(phenylamino)thioxomethyl]hydrazide (CA INDEX NAME)



RN 153705-73-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(3,5-dimethyl-1H-pyrazol-1-yl)-2-oxoethyl]thio]-4,6-diphenyl- (CA INDEX NAME)

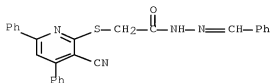


IT 153705-75-0P 153705-76-1P 153705-81-8P  
153705-82-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

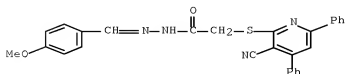
RN 153705-75-0 HCAPLUS

CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-,  
2-(phenylmethylene)hydrazide (CA INDEX NAME)



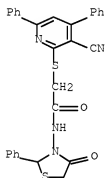


RN 153705-76-1 HCAPLUS

CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-,  
2-[(4-methoxyphenyl)methylene]hydrazide (CA INDEX NAME)

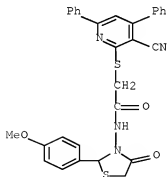
RN 153705-81-8 HCAPLUS

CN Acetamide, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-N-(4-oxo-2-phenyl-3-thiazolidinyl)- (CA INDEX NAME)

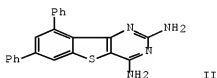
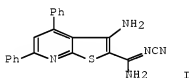


RN 153705-82-9 HCAPLUS

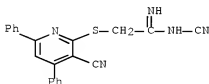
CN Acetamide, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-N-[2-(4-methoxyphenyl)-4-oxo-3-thiazolidinyl]- (CA INDEX NAME)



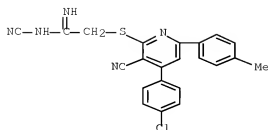
ACCESSION NUMBER: 1994:244928 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 120:244928  
 ORIGINAL REFERENCE NO.: 120:43417a,43420a  
 TITLE: Synthesis of 2,4-diaminopyrido[3',2':4,5]thieno[3,2-d]pyrimidines  
 AUTHOR(S): Artyomov, Vasilii A.; Rodinovskaya, Lyudmila A.; Shestopalov, Anatolii M.; Litvinov, Victor P.  
 CORPORATE SOURCE: N. D. Zelinsky Inst. Org. Chem., Moscow, 117913, Russia  
 SOURCE: Mendeleviev Communications (1992), (4), 149-51  
 CODEN: MENCEX; ISSN: 0959-9436  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 120:244928  
 ED Entered STN: 14 May 1994  
 GI



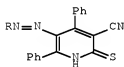
AB The heteroannulation reaction of 3-cyanopyridine-2(1H)-thiones with N-cyanochloroacetamide leads consecutively to thieno[2,3-b]pyridines, e.g. I, and 2,4-diaminopyrido[3',2':4,5]thieno[3,2-d]pyrimidines, e.g. II.  
 CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT [154049-79-3P](#) [154049-80-6P](#) 154049-81-7P 154049-82-8P  
 154049-83-9P 154049-84-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of)  
 IT [154049-79-3P](#) [154049-80-6P](#)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of)  
 RN 154049-79-3 HCAPLUS  
 CN Ethanimidamide, N-cyano-2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



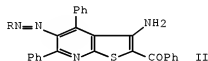
RN 154049-80-6 HCAPLUS  
 CN Ethanimidamide, 2-[[4-(4-chlorophenyl)-3-cyano-6-(4-methylphenyl)-2-pyridinyl]thio]-N-cyano- (CA INDEX NAME)



L57 ANSWER 39 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:38740 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 118:38740  
 ORIGINAL REFERENCE NO.: 118:7055a,7058a  
 TITLE: Synthesis of pyridine-2(1H)-thione and thieno[2,3-b]pyridine derivatives  
 AUTHOR(S): Elgemeie, Galal E. H.; Alnaimi, Ibrahim S.; Alarab, Hafsa F.  
 CORPORATE SOURCE: Fac. Sci., Qatar Univ., Doha, Qatar  
 SOURCE: Heterocycles (1992), 34(9), 1721-8  
 CODEN: HTCYAM; ISSN: 0385-5414  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:38740  
 ED Entered SIN: 03 Feb 1993  
 GI



I



II

AB Pyridinethiones I (R = substituted Ph) were prepared in 50-85% yields, by the cyclocondensation of cyanothioacetamide with 2-arylhydrazono-1,3-diphenylpropane-1,3-diones, (PhCO)2C:NNHR in presence of EtONa. I reacted with phenacyl bromide to give 77-90% thieno[2,3-b]pyridines II.

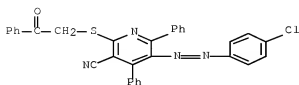
CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

IT 144881-56-1P 144881-59-4P 144881-61-8P 144881-62-9P 144881-64-1P  
 144881-65-2P 144881-66-3P 144881-67-4P 144881-68-5P 144881-69-6P  
 144881-70-9P 144881-71-0P 144881-72-1P  
 144881-73-2P 144881-74-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

IT 144881-70-9P 144881-71-0P 144881-72-1P  
 144881-73-2P 144881-74-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

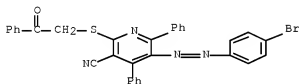
RN 144881-70-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[2-(4-chlorophenyl)diazenyl]-2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



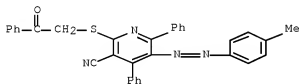
RN 144881-71-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[2-(4-bromophenyl)diazenyl]-2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



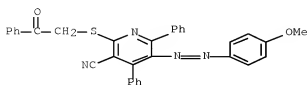
RN 144881-72-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[2-(4-methylphenyl)diazenyl]-2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)

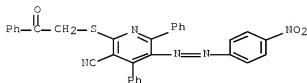


RN 144881-73-2 HCAPLUS

CN 3-Pyridinecarbonitrile, 5-[2-(4-methoxyphenyl)diazenyl]-2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



RN 144881-74-3 HCAPLUS  
 CN 3-Pyridinecarbonitrile, 5-[2-(4-nitrophenyl)diazonyl]-2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



L57 ANSWER 40 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1992:426413 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 117:26413

ORIGINAL REFERENCE NO.: 117:4767a,4770a

TITLE: Studies with polyfunctionally substituted heterocycles: synthesis of new pyridines, naphtho[1,2-b]pyrans, pyrazolo[3,4-b]pyridines and pyrazolo[1,5-a]pyrimidines

AUTHOR(S): Elnagdi, Mohamed Hilmy; Elghandour, Ahmed Hafiz Husein; Ibrahim, Mohamed Kamal Ahmed; Hafiz, Ibrahim Saad Abdel

CORPORATE SOURCE: Fac. Sci., Cairo Univ., Giza, Egypt

SOURCE: Zeitschrift fuer Naturforschung, B: Chemical Sciences (1992), 47(4), 572-8  
 CODEN: ZNBSEN; ISSN: 0932-0776

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 26 Jul 1992

AB A variety of new polyfunctionally substituted pyridines, naphthopyrans and pyrazolopyrimidines were prepared via reaction of ylidenemalononitriles with thiophenol, thionaphthol, naphthols and aminopyrazoles.

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 27

IT 84186-26-5P 111161-22-9P 111161-23-0P 119825-06-8P 119825-07-9P  
 130944-10-4P 130944-12-6P [141987-58-8P](#) [141987-59-9P](#)  
[141987-60-2P](#) [141987-61-3P](#) 141987-62-4P 141987-63-5P  
 141987-64-6P 141987-65-7P 141987-66-8P 141987-67-9P 141987-68-0P  
 141987-69-1P 141987-70-4P 141987-71-5P 141987-72-6P 141987-73-7P  
 141987-74-8P 141987-75-9P 141987-76-0P 141987-77-1P 141987-78-2P  
 141987-79-3P 141987-80-6P 141987-81-7P 141987-82-8P

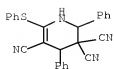
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

IT [141987-58-8P](#) [141987-59-9P](#) [141987-60-2P](#)  
[141987-61-3P](#)

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation and spectra of)

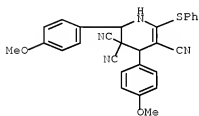
RN 141987-58-8 HCAPLUS

CN 3,3,5(2H)-Pyridinecarbonitrile, 1,4-dihydro-2,4-diphenyl-6-(phenylthio)- (CA INDEX NAME)



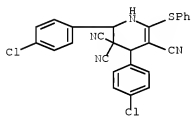
RN 141987-59-9 HCAPLUS

CN 3,3,5(2H)-Pyridinetricarbonitrile, 1,4-dihydro-2,4-bis(4-methoxyphenyl)-6-(phenylthio)- (CA INDEX NAME)



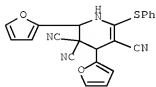
RN 141987-60-2 HCAPLUS

CN 3,3,5(2H)-Pyridinetricarbonitrile, 2,4-bis(4-chlorophenyl)-1,4-dihydro-6-(phenylthio)- (CA INDEX NAME)

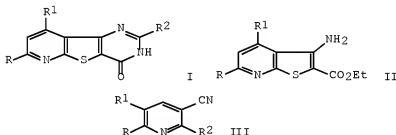


RN 141987-61-3 HCAPLUS

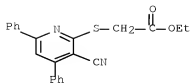
CN 3,3,5(2H)-Pyridinetricarbonitrile, 2,4-di-2-furanyl-1,4-dihydro-6-(phenylthio)- (CA INDEX NAME)



L57 ANSWER 41 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1992:591805 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 117:191805  
 ORIGINAL REFERENCE NO.: 117:33131a,33134a  
 TITLE: Synthesis and reactions of 2-carbethoxy-3-aminothieno[2,3-b]pyridines  
 AUTHOR(S): Dave, Chaitanya G.; Shah, P. R.; Shah, A. B.  
 CORPORATE SOURCE: Dep. Chem., St Xavier's Coll., Ahmedabad, 380 009, India  
 SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1992), 31B(8), 492-4  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 117:191805  
 ED Entered STN: 15 Nov 1992  
 GI

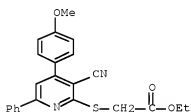


- AB Several pyridothienopyrimidinones I (R, R1 = Ph, substituted Ph; R2 = H, Me) have been synthesized from novel 2-carbethoxy-3-aminothieno[2,3-b]pyridines II. 2-Carbethoxymethylmercapto-3-cyanopyridines III (R, R1 as above; R2 = SCH2CO2Et) have been isolated from the reactions between 2-chloro-3-cyanopyridines III (R2 = Cl) and HSCH2CO2Et during the synthesis of II. The structures of the compds. have been established on the basis of elemental anal. and spectral data.
- CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))
- IT [94360-72-2P](#) [94360-74-4P](#) [94360-76-6P](#)  
[143882-80-8P](#) [143882-81-9P](#) [143882-82-0P](#)  
[143882-83-1P](#) [143882-84-2P](#)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of, in presence of base)
- IT [94360-72-2P](#) [94360-74-4P](#) [94360-76-6P](#)  
[143882-80-8P](#) [143882-81-9P](#) [143882-82-0P](#)  
[143882-83-1P](#) [143882-84-2P](#)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of, in presence of base)
- RN 94360-72-2 HCAPLUS
- CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, ethyl ester (CA INDEX NAME)



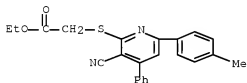
RN 94360-74-4 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]-,  
ethyl ester (CA INDEX NAME)



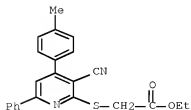
RN 94360-76-6 HCAPLUS

CN Acetic acid, [[3-cyano-6-(4-methylphenyl)-4-phenyl-2-pyridinyl]thio]-,  
ethyl ester (9CI) (CA INDEX NAME)



RN 143882-80-8 HCAPLUS

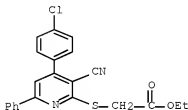
CN Acetic acid, 2-[[3-cyano-4-(4-methylphenyl)-6-phenyl-2-pyridinyl]thio]-,  
ethyl ester (CA INDEX NAME)





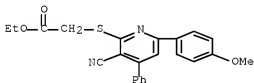
RN 143882-81-9 HCAPLUS

CN Acetic acid, 2-[[4-(4-chlorophenyl)-3-cyano-6-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



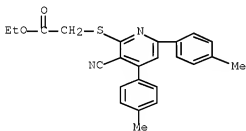
RN 143882-82-0 HCAPLUS

CN Acetic acid, 2-[[3-cyano-6-(4-methoxyphenyl)-4-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



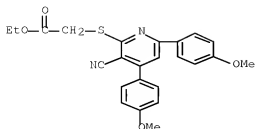
RN 143882-83-1 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4,6-bis(4-methylphenyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)

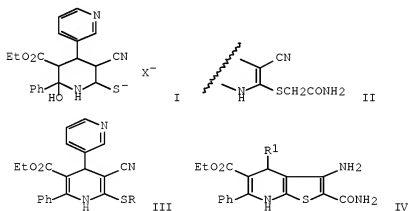


RN 143882-84-2 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4,6-bis(4-methoxyphenyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)

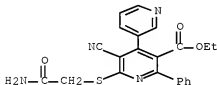


L57 ANSWER 42 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1993:38791 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 118:38791  
 ORIGINAL REFERENCE NO.: 118:7067a,7070a  
 TITLE: Synthesis, properties, and cardiotoxic activity of  
 2-carbamoylmethylthio-6-phenyl-5-ethoxycarbonyl-3-  
 cyclo-4-(pyrido-3'yl)pyridine derivatives and their  
 hydrogenated analogs  
 AUTHOR(S): Krauze, A.; Garalene, V.; Duburs, G.  
 CORPORATE SOURCE: Inst. Org. Synth., Riga, Latvia  
 SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1992),  
 26(5), 40-3  
 CODEN: KHFZAN; ISSN: 0023-1134  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 03 Feb 1993  
 GI

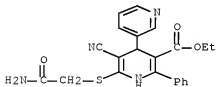


AB Cyclocondensation of  $\text{PhCOCH}_2\text{CO}_2\text{Et}$  with 2-cyano-3-pyridinethioacrylamide in the presence of bases gave pyridinecarboxylates I ( $\text{X}^+ = \text{piperidino}, \text{Na}$ ) which when treated with  $\text{ICH}_2\text{CONH}_2$  gave 82% amide II; betaine III ( $\text{R} = \text{H}$ ) similarly treated gave amide III ( $\text{R} = \text{CH}_2\text{CONH}_2$ ) which underwent base-catalyzed cyclization to give thienopyridine IV ( $\text{R}_1 = 3\text{-pyridyl}$ ). Addnl. obtained was IV

- (R1 = Ph). The 4,3'-bipyridines show dual activity-neg. inotropic action at low concns. and pos. inotropic activity at concns. >10<sup>-5</sup>M.
- CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))  
Section cross-reference(s): 1
- IT 144969-93-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, cyclization, and cardiotonic properties of)
- IT 144969-91-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, ionic hydrogenation, and base-catalyzed cyclization of)
- IT 144969-93-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, cyclization, and cardiotonic properties of)
- RN 144969-93-7 HCAPLUS
- CN [3,4'-Bipyridine]-3'-carboxylic acid, 6'-[(2-amino-2-oxoethyl)thio]-5'-cyano-2'-phenyl-, ethyl ester (CA INDEX NAME)



- IT 144969-91-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, ionic hydrogenation, and base-catalyzed cyclization of)
- RN 144969-91-5 HCAPLUS
- CN [3,4'-Bipyridine]-3'-carboxylic acid, 6'-[(2-amino-2-oxoethyl)thio]-5'-cyano-1',4'-dihydro-2'-phenyl-, ethyl ester (CA INDEX NAME)



L57 ANSWER 43 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

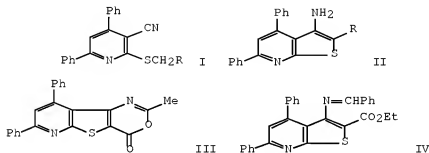
ACCESSION NUMBER: 1993:147516 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 118:147516

ORIGINAL REFERENCE NO.: 118:25371a,25374a

TITLE: Pyridine derivatives and related compounds. Some reactions with 3-cyano-4,6-diphenyl-2-mercaptopyridine  
AUTHOR(S): Deeb, A.; Essawy, A.; El-Gendy, A. M.; Shaban, A. M.  
CORPORATE SOURCE: Fac. Sci., Zagazig Univ., Zagazig, Egypt

SOURCE: Egyptian Journal of Chemistry (1991), Volume  
 Date 1990, 33(2), 215-20  
 CODEN: EGJCA3; ISSN: 0367-0422  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered SIN: 13 Apr 1993  
 GI



AB The title compound reacted with  $XCH_2R$  ( $R = CO_2H$ ,  $X = Cl$ ;  $R = CO_2Et$ ,  $X = Br$ ;  $R = C(=O)Ph$ ,  $X = Br$ ) to give (methylthio)pyridines I. I underwent intramolecular cyclization to give thienopyridines II. II ( $R = CO_2H$ ) was N-acetylated and cyclized to give pyridothienooxazinone III. II ( $R = CO_2Et$ ) condensed with  $PhCHO$  to give the corresponding imine IV.

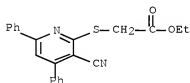
CC 28-13 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 94360-72-2P 94360-86-8P 94361-03-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of, thienylpyridine from)

IT 94360-72-2P 94360-86-8P 94361-03-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and intramol. cyclization of, thienylpyridine from)

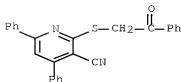
RN 94360-72-2 HCAPLUS

CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, ethyl ester (CA INDEX NAME)

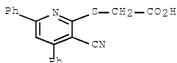


RN 94360-86-8 HCAPLUS

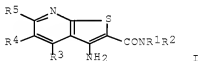
CN 3-Pyridinecarbonitrile, 2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



RN 94361-03-2 HCAPLUS  
 CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



L57 ANSWER 44 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1990:515227 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 113:115227  
 ORIGINAL REFERENCE NO.: 113:19527a,19530a  
 TITLE: Polycyclic pyridines. Part 8. Synthesis of new primary, secondary and tertiary 3-aminothieno[2,3-b]pyridine-2-carboxamides by different pathways  
 AUTHOR(S): Wagner, G.; Vieweg, H.; Leistner, S.; Boehm, N.; Krasselt, U.; Hanfeld, Vera; Prantz, J.; Grupe, Renate  
 CORPORATE SOURCE: SEKT. Biowiss., Karl-Marx-Univ., Leipzig, DDR-7010, Ger. Dem. Rep.  
 SOURCE: Pharmazie (1990), 45(2), 102-9  
 CODEN: PHARAT; ISSN: 0031-7144  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 OTHER SOURCE(S): CASREACT 113:115227  
 ED Entered STN: 29 Sep 1990  
 GI



AB The treatment of 2-thioxo-1,2-dihydropyridine-3-carbonitriles with ClCH2CO2NR1R3 (R1, R2 = H, Me, Et) gave 3-aminothieno[2,3-b]pyridinecarboxylic acid amides I [R1 = H, Et, Me; R2 = H, Et, Bu, cyclohexyl, CH2CH2OH, CH2CO2H; R1R2 = (CH2)5; R3 = Me, Ph, 4-BrC6H4, 3-pyridyl, CONH2, etc; R4 = H, Me, CH2C6H4(CN)-4; R5 = Me, C6H4Cl-4, Ph, C6H4Br-4, furyl, naphthyl, OH). Some of the compds. thus prepared, e.g. I (R1 = R2 = R4 = H, R3 = Me, R5 = Ph) and I (R1 = R4 = H, R2 = CH2CH2OH, R3 = R5 = Me)

showed activity as antiallergics in the passive cutaneous anaphylaxis test in rats.

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 1

IT 128917-90-8P 128917-91-9P 128917-92-0P

128917-93-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and condensation reaction of, with hydrazine)

IT 128917-90-8P 128917-91-9P 128917-92-0P

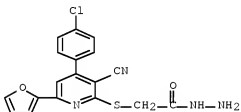
128917-93-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and condensation reaction of, with hydrazine)

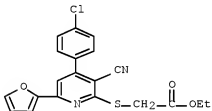
RN 128917-90-8 HCAPLUS

CN Acetic acid, 2-[[4-(4-chlorophenyl)-3-cyano-6-(2-furanyl)-2-pyridinyl]thio]-, hydrazide (CA INDEX NAME)



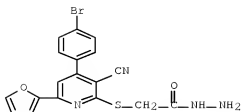
RN 128917-91-9 HCAPLUS

CN Acetic acid, 2-[[4-(4-chlorophenyl)-3-cyano-6-(2-furanyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



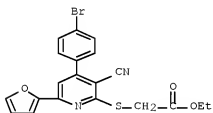
RN 128917-92-0 HCAPLUS

CN Acetic acid, 2-[[4-(4-bromophenyl)-3-cyano-6-(2-furanyl)-2-pyridinyl]thio]-, hydrazide (CA INDEX NAME)



RN 128917-93-1 HCAPLUS

CN Acetic acid, 2-[[4-(4-bromophenyl)-3-cyano-6-(2-furanyl)-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



L57 ANSWER 45 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1988:55915 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 108:55915

ORIGINAL REFERENCE NO.: 108:9337a,9340a

TITLE: 3-Amino-2-carbamoyl-4,6-diphenyl-4,5- and 4,7-dihydrothieno[2,3-b]pyridines

AUTHOR(S): Krauze, A.; Liepins, E.; Dubur, G.

CORPORATE SOURCE: Inst. Org. Sint., Riga, 226006, USSR

SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1987), (4), 563-4

CODEN: KGSSAQ; ISSN: 0453-8234

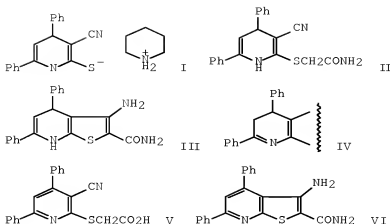
DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 108:55915

ED Entered STN: 20 Feb 1988

GI



AB Alkylation of salt I by  $\text{ICH}_2\text{CONH}_2$  gave 79% pyridine II which was heated with base at  $50-60^\circ$  to give thienopyridines III and 83% IV. Oxidation of II gave pyridine V which was cyclized by NaOH to give thienopyridine VI.

CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))

IT 94360-67-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and cyclization by sodium hydroxide)

IT 112475-75-9P

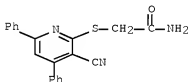
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation, oxidation, and cyclization by base)

IT 94360-67-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and cyclization by sodium hydroxide)

RN 94360-67-5 HCAPLUS

CN Acetamide, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



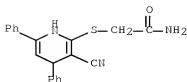
IT 112475-75-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation, oxidation, and cyclization by base)

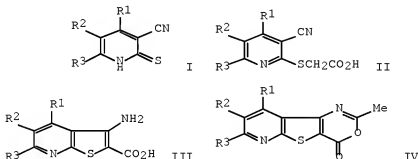
RN 112475-75-9 HCAPLUS

CN Acetamide, 2-[(3-cyano-1,4-dihydro-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)





L57 ANSWER 46 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1985:95563 HCAPLUS Full-text  
 DOCUMENT NUMBER: 102:95563  
 ORIGINAL REFERENCE NO.: 102:15029a,15032a  
 TITLE: Cyclization of nitriles. XI. Synthesis and reactions of 3-amino-2-carboxythieno[2,3-b]pyridines  
 AUTHOR(S): Shestopalov, A. M.; Sharanin, Yu. A.  
 CORPORATE SOURCE: Voroshilovgrad. Gos. Pedagog. Inst., Voroshilovgrad, USSR  
 SOURCE: Zhurnal Organicheskoi Khimii (1984), 20(9), 1991-2002  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 102:95563  
 ED Entered STN: 22 Mar 1985  
 GI



AB Treating 3-cyano-2(1H)-pyridinethiones I [R1 = Ph, halosubstituted Ph, R2 = H, R3 = Ph; R1 = Ph, 4-ClC6H4, 4-BrC6H4, 2-furyl, R2R3 = (CH2)4; R1 = 2-FC6H4, Ph, R2 = H, R3 = Ph, 4-MeC6H4, 4-MeOC6H4; R1 = 2-furyl, R2 = Me, R3 = H] with BrCH2CO2H gave 55-98% thioacetic acid derivs. II which underwent the Torpa-Ziegler reaction to give 79-98% thienopyridines III. The latter III [R1 = Ph, 4-FC6H4, 4-ClC6H4, R2 = H, R3 = Ph; R1 = Ph, 2-furyl, R2R3 = (CH2)4] cyclocondensed with Ac2O gave oxazines IV.  
 CC 28-2 (Heterocyclic Compounds (More Than One Hetero Atom))  
 IT 58327-77-8P 94639-03-2P 94639-83-5P 94639-86-8P  
94639-89-1P 94640-05-8P 94640-06-9P  
94640-07-0P 94640-08-1P 94640-09-2P  
 94640-10-5P 94640-11-6P 94640-12-7P 94640-13-8P 94655-71-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)

(preparation and cyclization of)

IT 94360-67-5P 94639-68-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and intramol. cyclocondensation of)

IT 58327-96-1P 94639-61-9P 94639-62-0P 94639-63-1P 94639-64-2P

94639-65-3P 94639-66-4P 94639-69-7P 94639-70-0P 94639-79-9P94639-80-2P 94639-81-3P 94639-82-4P 94639-84-6P

94639-85-7P 94639-87-9P 94639-88-0P 94639-94-8P 94639-95-9P

94639-96-0P 94639-97-1P 94639-98-2P 94639-99-3P 94640-00-3P

94640-01-4P 94640-14-9P 94655-72-8P 94655-73-9P

94655-74-0P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

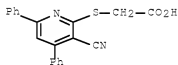
IT 94361-03-2P 94640-05-8P 94640-06-9P94640-07-0P 94640-08-1P 94640-09-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

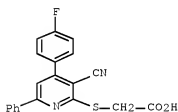
RN 94361-03-2 HCAPLUS

CN Acetic acid, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



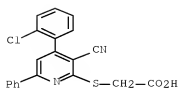
RN 94640-05-8 HCAPLUS

CN Acetic acid, [[3-cyano-4-(4-fluorophenyl)-6-phenyl-2-pyridinyl]thio]- (9CI) (CA INDEX NAME)



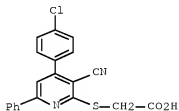
RN 94640-06-9 HCAPLUS

CN Acetic acid, [[4-(2-chlorophenyl)-3-cyano-6-phenyl-2-pyridinyl]thio]- (9CI) (CA INDEX NAME)



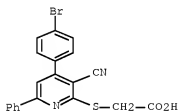
RN 94640-07-0 HCAPLUS

CN Acetic acid, 2-[[4-(4-chlorophenyl)-3-cyano-6-phenyl-2-pyridinyl]thio]-  
(CA INDEX NAME)



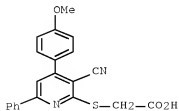
RN 94640-08-1 HCAPLUS

CN Acetic acid, [[4-(4-bromophenyl)-3-cyano-6-phenyl-2-pyridinyl]thio]- (9CI)  
(CA INDEX NAME)



RN 94640-09-2 HCAPLUS

CN Acetic acid, [[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]-  
(9CI) (CA INDEX NAME)

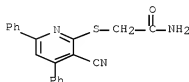


IT 94360-67-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and intramol. cyclocondensation of)

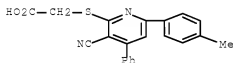
RN 94360-67-5 HCAPLUS

CN Acetamide, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)

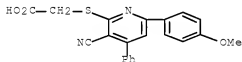
IT 94639-79-9P 94639-80-2P 94640-14-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 94639-79-9 HCAPLUS

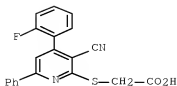
CN Acetic acid, [[3-cyano-6-(4-methylphenyl)-4-phenyl-2-pyridinyl]thio]-  
(9CI) (CA INDEX NAME)

RN 94639-80-2 HCAPLUS

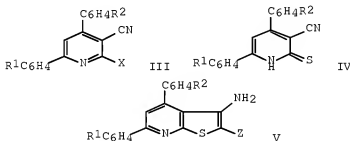
CN Acetic acid, [[3-cyano-6-(4-methoxyphenyl)-4-phenyl-2-pyridinyl]thio]-  
(9CI) (CA INDEX NAME)

RN 94640-14-9 HCAPLUS

CN Acetic acid, [[3-cyano-4-(2-fluorophenyl)-6-phenyl-2-pyridinyl]thio]-  
(9CI) (CA INDEX NAME)



L57 ANSWER 47 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1985:62106 HCAPLUS Full-text  
 DOCUMENT NUMBER: 102:62106  
 ORIGINAL REFERENCE NO.: 102:9741a,9744a  
 TITLE: Cyclization of nitriles. XI. Syntheses from  
 2-aryl-3-aryl-1,1-dicyanopropanes  
 AUTHOR(S): Shestopalov, A. M.; Promonenkov, V. K.; Sharanin, Yu.  
 A.; Rodinovskaya, L. A.; Sharanin, S. Yu.  
 CORPORATE SOURCE: Voroshilovgrad. Gos. Pedagog. Inst., Voroshilovgrad,  
 USSR  
 SOURCE: Zhurnal Organicheskoi Khimii (1984), 20(7),  
 1517-38  
 CODEN: ZORKAE; ISSN: 0514-7492  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 ED Entered STN: 24 Feb 1985  
 GI



AB R1C6H4COCH(C6H4R2)CH(CN)2 (I; R1 = H, 4-F, 4-MeO, 4-Me, 4-Br, 4-Cl; R2 = H, 2-F, 2-, 4-Cl, 2-, 4-MeO, 3-, 4-Br) and R1C6H4COCH2CH(C6H4R2)CBr(CN)2 (II) were prepared from chalcones and CH2(CN)2 and converted to the corresponding 3-cyanopyridines III and 3-cyano-2(1H)-pyridinethiones IV. Treating the latter with ZCH2X (Z = CN, Bz, substituted Bz, CO2Et, CO2Me, CONH2; X = Cl, Br) gives S-phenacyl, etc. derivs. which are easily cyclized to thienopyridines V. 2-Bromo-3-cyanopyridines also undergo nucleophilic substitution with alcs., amines, iodine, cyanides, and rhodamine.

CC 28-2 (Heterocyclic Compounds) (More Than One Hetero Atom)

IT 78564-27-9P 78564-30-4P 78615-26-6P 94360-66-4P  
94360-67-5P 94360-68-6P 94360-69-7P  
94360-72-2P 94360-73-3P 94360-74-4P  
94360-75-5P 94360-76-6P 94360-77-7P  
94360-78-8P 94360-86-8P 94360-87-9P

94360-68-0P 94360-69-1P 94360-90-4P  
94360-91-5P 94360-92-6P 94360-93-7P  
94360-94-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

IT	58327-70-1P	58327-73-4P	58327-77-8P	60847-65-6P	60847-68-9P
	61006-40-4P	78564-37-1P	94360-17-5P	94360-21-1P	94360-22-2P
	94360-23-3P	94360-25-5P	94360-26-6P	94360-27-7P	94360-28-8P
	94360-29-9P	94360-30-2P	94360-32-4P	94360-35-7P	94360-36-8P
	94360-37-9P	94360-38-0P	94360-39-1P	94360-40-4P	94360-41-5P
	94360-42-6P	94360-43-7P	94360-44-8P	94360-45-9P	94360-46-0P
	94360-47-1P	94360-48-2P	94360-49-3P	94360-50-6P	94360-51-7P
	94360-52-8P	94360-53-9P	94360-54-0P	94360-55-1P	94360-56-2P
	94360-57-3P	94360-58-4P	94360-59-5P	94360-60-8P	94360-61-9P
	94360-62-0P	94360-70-0P	94360-71-1P	94360-79-9P	94360-80-2P
	94360-81-3P	94360-82-4P	94360-83-5P	94360-84-6P	94360-85-7P
	94360-95-9P	94360-96-0P	94360-97-1P	94360-98-2P	94360-99-3P
	94361-00-9P	94361-01-0P	94361-02-1P	<u>94361-03-2P</u>	

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

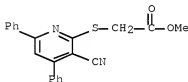
IT	<u>78564-30-4P</u>	<u>94360-67-5P</u>	<u>94360-68-6P</u>
	<u>94360-69-7P</u>	<u>94360-72-2P</u>	<u>94360-73-3P</u>
	<u>94360-74-4P</u>	<u>94360-75-5P</u>	<u>94360-76-6P</u>
	<u>94360-77-7P</u>	<u>94360-78-8P</u>	<u>94360-86-8P</u>
	<u>94360-87-9P</u>	<u>94360-88-0P</u>	<u>94360-89-1P</u>
	<u>94360-90-4P</u>	<u>94360-91-5P</u>	<u>94360-92-6P</u>
	<u>94360-93-7P</u>	<u>94360-94-8P</u>	

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

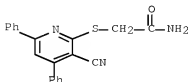
RN 78564-30-4 HCAPLUS

CN Acetic acid, [(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, methyl ester (9CI)  
 (CA INDEX NAME)



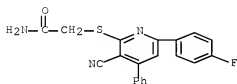
RN 94360-67-5 HCAPLUS

CN Acetamide, 2-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



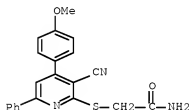
RN 94360-68-6 HCAPLUS

CN Acetamide, 2-[[3-cyano-6-(4-fluorophenyl)-4-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



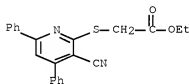
RN 94360-69-7 HCAPLUS

CN Acetamide, 2-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]- (CA INDEX NAME)



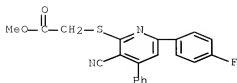
RN 94360-72-2 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4,6-diphenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



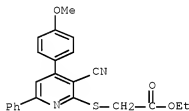
RN 94360-73-3 HCAPLUS

CN Acetic acid, [[3-cyano-6-(4-fluorophenyl)-4-phenyl-2-pyridinyl]thio]-, methyl ester (9CI) (CA INDEX NAME)



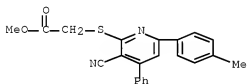
RN 94360-74-4 HCAPLUS

CN Acetic acid, 2-[[3-cyano-4-(4-methoxyphenyl)-6-phenyl-2-pyridinyl]thio]-, ethyl ester (CA INDEX NAME)



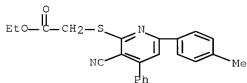
RN 94360-75-5 HCAPLUS

CN Acetic acid, [[3-cyano-6-(4-methylphenyl)-4-phenyl-2-pyridinyl]thio]-, methyl ester (9CI) (CA INDEX NAME)



RN 94360-76-6 HCAPLUS

CN Acetic acid, [[3-cyano-6-(4-methylphenyl)-4-phenyl-2-pyridinyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)

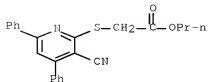


RN 94360-77-7 HCAPLUS

CN Acetic acid, [[3-cyano-4,6-diphenyl-2-pyridinyl]thio]-, propyl ester (9CI)

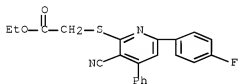


(CA INDEX NAME)



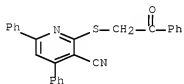
RN 94360-78-8 HCAPLUS

CN Acetic acid, [[3-cyano-6-(4-fluorophenyl)-4-phenyl-2-pyridinyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



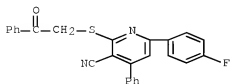
RN 94360-86-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[(2-oxo-2-phenylethyl)thio]-4,6-diphenyl- (CA INDEX NAME)



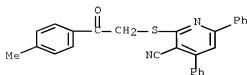
RN 94360-87-9 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-(4-fluorophenyl)-2-[(2-oxo-2-phenylethyl)thio]-4-phenyl- (CA INDEX NAME)



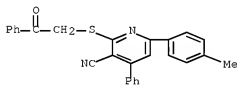
RN 94360-88-0 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(4-methylphenyl)-2-oxoethyl]thio]-4,6-diphenyl- (CA INDEX NAME)



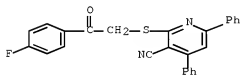
RN 94360-89-1 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-(4-methylphenyl)-2-[(2-oxo-2-phenylethyl)thio]-4-phenyl- (CA INDEX NAME)



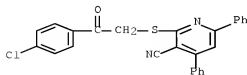
RN 94360-90-4 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(4-fluorophenyl)-2-oxoethyl]thio]-4,6-diphenyl- (CA INDEX NAME)



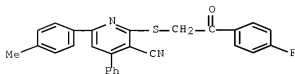
RN 94360-91-5 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(4-chlorophenyl)-2-oxoethyl]thio]-4,6-diphenyl- (CA INDEX NAME)



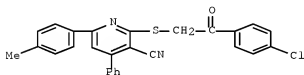
RN 94360-92-6 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(4-fluorophenyl)-2-oxoethyl]thio]-6-(4-methylphenyl)-4-phenyl- (CA INDEX NAME)



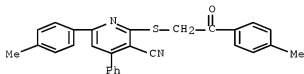
RN 94360-93-7 HCAPLUS

CN 3-Pyridinecarbonitrile, 2-[[2-(4-chlorophenyl)-2-oxoethyl]thio]-6-(4-methylphenyl)-4-phenyl- (CA INDEX NAME)



RN 94360-94-8 HCAPLUS

CN 3-Pyridinecarbonitrile, 6-(4-methylphenyl)-2-[[2-(4-methylphenyl)-2-oxoethyl]thio]-4-phenyl- (CA INDEX NAME)

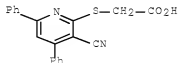


IT 94361-03-2P

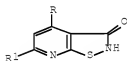
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 94361-03-2 HCAPLUS

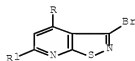
CN Acetic acid, 2-[[3-(cyano-4,6-diphenyl-2-pyridinyl)thio]- (CA INDEX NAME)



DOCUMENT NUMBER: 97:55723  
 ORIGINAL REFERENCE NO.: 97:9385a,9388a  
 TITLE: Synthesis of 3-oxoisothiazolo[5,4-b]pyridines  
 AUTHOR(S): Krauze, A.; Bomika, Z.; Pelcers, J.; Mazeika, I.; Duburs, G.  
 CORPORATE SOURCE: Inst. Org. Sint., Riga, 226006, USSR  
 SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1992), (4), 508-12  
 CODEN: KGSSAQ; ISSN: 0453-8234  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 OTHER SOURCE(S): CASREACT 97:55723  
 ED Entered STN: 12 May 1984  
 GI

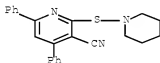


III



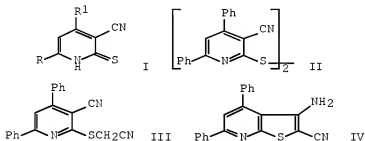
IV

AB Reaction of thioxopyridinecarbonitriles (I) or cyanopyridinyl disulfides (II) with H2SO4 gave III (R, R1 = Ph, Ph; Ph, Me; Me, Ph; Me, Me), which with PBr5 gave IV (R, R1 = Ph, Ph; o-F2CHOC6H4, Ph; Ph, Me; Me, Me), also obtained from I or II and Br. Some reactions of III and IV were described.  
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 27  
 IT 16232-42-1P ~~82447-82-3P~~ 82447-83-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT ~~82447-82-3P~~  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 82447-82-3 HCAPLUS  
 CN Piperidine, 1-[(3-cyano-4,6-diphenyl-2-pyridinyl)thio]- (9CI) (CA INDEX NAME)

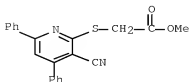


L57 ANSWER 49 OF 51 HCAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1981:480662 HCAPLUS Full-text  
 DOCUMENT NUMBER: 95:80662  
 ORIGINAL REFERENCE NO.: 95:13635a,13638a  
 TITLE: Synthesis and some reactions of 3-cyanopyridine-2-thiones

AUTHOR(S): Krauze, A.; Bomika, Z.; Shestopalov, A. M.;  
Rodinovskaya, L. A.; Pelcers, J.; Duburs, G.;  
Sharanin, Yu. A.; Promonenkov, V. K.  
CORPORATE SOURCE: Inst. Org. Sint., Riga, 226006, USSR  
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1981  
(3), 377-82  
CODEN: KGSSAQ; ISSN: 0453-8234  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
OTHER SOURCE(S): CASREACT 95:80662  
ED Entered STN: 12 May 1984  
GI



- AB Cyanopyridinethiones I [R = Ph, Me, 4-MeOC<sub>6</sub>H<sub>4</sub>, 4-MeC<sub>6</sub>H<sub>4</sub>, 4-FC<sub>6</sub>H<sub>4</sub>; R<sub>1</sub> = Ph, 4-ClC<sub>6</sub>H<sub>4</sub>, 4-MeOC<sub>6</sub>H<sub>4</sub>, 4-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 4-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>, 2-(F<sub>2</sub>CHO)C<sub>6</sub>H<sub>4</sub>] were prepared by cyclocondensation of RCOCH<sub>2</sub>CH(R<sub>1</sub>)CH(CN)<sub>2</sub> in refluxing Me<sub>2</sub>CHOH containing morpholine and powdered S. Alternatively, condensation of PhCOCH:CHPh with NCCH<sub>2</sub>C(S)NH<sub>2</sub> in MeOH containing NaOMe gave I (R = R<sub>1</sub> = Ph). I underwent oxidative coupling, alkylation, and cyclocondensation reactions. Thus, treatment of I (R = R<sub>1</sub> = Ph) with iodine in aqueous NaOH gave the disulfide II. Alkylation of I (R = R<sub>1</sub> = Ph) by ClCH<sub>2</sub>CN gave pyridine III, which cyclized in EtOH containing NaOMe to give thienopyridine IV.
- CC 27-17 (Heterocyclic Compounds (One Hetero Atom))
- IT 78564-27-9P 78564-28-0P 78564-29-1P 78564-30-4P  
78615-26-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclocondensation reaction of)
- IT 78564-30-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclocondensation reaction of)
- RN 78564-30-4 HCAPLUS
- CN Acetic acid, [(3-cyano-4,6-diphenyl-2-pyridinyl)thio]-, methyl ester (9CI)  
(CA INDEX NAME)



=> d ibib ab hitstr 50-51

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L57 ANSWER 50 OF 51 USPATFULL on STN

ACCESSION NUMBER: 2007:94584 USPATFULL [Full-text](#)  
 TITLE: Metal complexes with bipodal ligands  
 INVENTOR(S): Stoessel, Philipp, Frankfurt, GERMANY, FEDERAL REPUBLIC  
 OF  
 Gerhard, Anja, Veitshoechheim, GERMANY, FEDERAL  
 REPUBLIC OF  
 PATENT ASSIGNEE(S): Merck Patent GmbH, Darmstadt, GERMANY, FEDERAL REPUBLIC  
 OF, 64293 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070082284	A1	20070412
APPLICATION INFO.:	US 2004-578039	A1	20041021 (10)
	WO 2004-EP11890		20041021
			20060501 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 2003-10350722	20031030 <--
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CONNOLLY BOVE LODGE & HUTZ, LLP, P O BOX 2207, WILMINGTON, DE, 19899, US	
NUMBER OF CLAIMS:	28	
EXEMPLARY CLAIM:	1	
LINE COUNT:	907	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB The present invention describes novel metal complexes with bipolar ligands. Compounds of this type can be employed as functional materials in a number of different applications which can be ascribed to the electronics industry in the broadest sense.

L57 ANSWER 51 OF 51 USPATFULL on STN

ACCESSION NUMBER: 2007:18082 USPATFULL [Full-text](#)  
 TITLE: Glyoxalase inhibitors  
 INVENTOR(S): Ashton, Mark, Abingdon Oxfordshire, UNITED KINGDOM  
 Davidson, Alan, Abingdon, Oxfordshire, UNITED KINGDOM  
 Thomas, Russell, Oxfordshire, UNITED KINGDOM  
 Whittaker, Mark, Oxfordshire, UNITED KINGDOM

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070015799	A1	20070118
APPLICATION INFO.:	US 2004-556901	A1	20040514 (10)
	WO 2004-GB2101		20040514
			20060202 PCT 371 date

NUMBER	DATE
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PRIORITY INFORMATION: GB 2003-11195 20030515 <--  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: NIXON & VANDERHYE, PC, 901 NORTH GLEBE ROAD, 11TH FLOOR, ARLINGTON, VA, 22203, US  
NUMBER OF CLAIMS: 49  
EXEMPLARY CLAIM: 1  
LINE COUNT: 1648  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

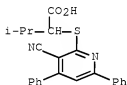
AB This invention relates to compounds of formula (I) which are glyoxalase I inhibitors, pharmaceutical salts or compositions comprising such compounds, and the use of such compositions and compounds to treat various conditions alleviated by the inhibition of glyoxalase 1. Wherein X is N or CH. R.sup.2 is H, CF.sub.3; or optionally substituted C.sub.5-6 aryl, C.sub.3-7 cycloalkyl, C.sub.5-7 heterocyclyl. R.sup.3 is H; or optionally substituted C.sub.5-6 aryl, C.sub.3-7 cycloalkyl, C.sub.5-7 heterocyclyl. Alternatively R.sup.2 and R.sup.3 together form an optionally substituted C.sub.3-4 alkylene group wherein L.sup.3 and L.sup.4 are single bonds thus forming a C.sub.5-6 ring fused with the aromatic ring to which L.sup.3 and L.sup.4 are attached. L.sup.3 and L.sup.4 are independently selected from a single bond, optionally substituted C.sub.1-4 alkylene, -L.sup.9YN(OH)C(.dbd.O)L.sup.10- and -L.sup.9C(.dbd.O)N(OH)YL.sup.10-, wherein L.sup.9 and L.sup.10 are independently selected from optionally substituted C.sub.1-4 alkylene, C.sub.5-6 arylene, C.sub.1-4 alkylene-C.sub.5-6arylene and a single bond, wherein Y is NH or a single bond.

IT 332040-74-1P 352544-89-9P 354555-20-7P  
354555-66-1P 354555-67-2P 371222-06-9P  
371237-12-6P

(preparation of benzamide derivs. useful as glyoxalase inhibitors)

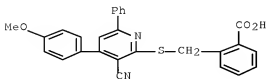
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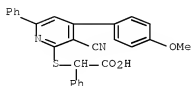


RN 352544-89-9 USPTAFULL

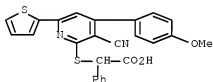
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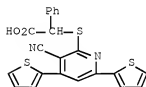
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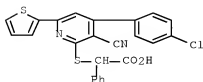
RN 354555-66-1 USPATFULL

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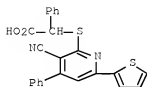
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RN 371222-06-9 USPATFULL

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RN 371237-12-6 USPATFULL

CN Benzeneacetic acid,  $\alpha$ -[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)

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L20     QUE ABB=ON  PLU=ON  ARVANITES, T?/AU
L21     QUE ABB=ON  PLU=ON  ALI, S?/AU
L22     QUE ABB=ON  PLU=ON  GENG, B?/AU
L23     QUE ABB=ON  PLU=ON  ASHWELL, M?/AU
L24     QUE ABB=ON  PLU=ON  ORGUEIRA, H?/AU
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=> d que nos 144
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L21     QUE ABB=ON  PLU=ON  ALI, S?/AU
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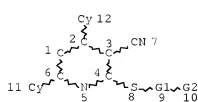
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=&gt; d que 147

L12

STR



O @16

N @17

S @18

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VAR G3=16/17/18

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CONNECT IS E1 RC AT 16

CONNECT IS E1 RC AT 17

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GGCAT IS MCY UNS AT 11

GGCAT IS MCY UNS AT 12

DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 21

STEREO ATTRIBUTES: NONE

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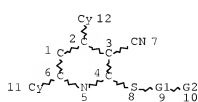
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L2

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L12

STR



O @16

N @17

S @18



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VAR G3=16/17/18
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CONNECT IS E1 RC AT 16
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GGCAT   IS MCY UNS AT 11
GGCAT   IS MCY UNS AT 12
DEFAULT ELEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 21

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STEREO ATTRIBUTES: NONE

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L21      QUE ABB=ON PLU=ON ALI, S?/AU
L22      QUE ABB=ON PLU=ON GENG, B?/AU
L23      QUE ABB=ON PLU=ON ASHWELL, M?/AU
L24      QUE ABB=ON PLU=ON ORGUEIRA, H?/AU
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RAF3PA/DCN OR RAF3PB/DCN OR RAF3P4/DCN OR RAF3P5/DCN OR
RAF3P6/DCN OR RAF3P9/DCN OR RAI1QS/DCN OR RAOHFY/DCN OR
RAOHFZ/DCN OR RAOHG0/DCN OR RAOHG1/DCN OR RAOHG2/DCN OR
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L50/DCR
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USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE 'WPIX' ENTERED AT 17:10:37 ON 18 SEP 2008
COPYRIGHT (C) 2008 THOMSON REUTERS
PROCESSING COMPLETED FOR L38
PROCESSING COMPLETED FOR L44
PROCESSING COMPLETED FOR L54

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10/542,351

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FILE CONTAINS CURRENT INFORMATION.

LAST RELOADED: Sep 12, 2008 (20080912/UP).

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L58 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:633527 HCAPLUS Full-text

DOCUMENT NUMBER: 141:174078

TITLE: Preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.

INVENTOR(S): Moir, Donald T.; Xiang, Yibin;  
Arvanites, Anthony C.; Ali, Syed  
Masarrat, Geng, Eolin; Asbwell,  
Mark A.; Orquiza, Hernan Antonio

PATENT ASSIGNEE(S): Genome Therapeutics Corporation, USA; Accule

SOURCE: PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

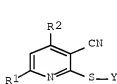
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004064837	A1	20040805	WO 2004-US1327	20040116 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ				
US 20070027190	A1	20070201	US 2006-542351	20060807
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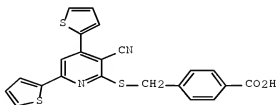
OTHER SOURCE(S): MARPAT 141:174078

ED Entered STN: 06 Aug 2004

GI



I



II

AB Title compds. I [R1, R2 = (un)substituted monocyclic aryl, heteroaryl; Y = X1-X2; X1 = bond, (un)substituted alkylene; X2 = aryl, heteroaryl, cycloaliph., etc.] and their pharmaceutically acceptable salts were prepared For example, condensation-annulation of 1,3-di-2-thienyl-2-propen-1-one and 2-cyanoethanethioamide, followed by 4-(bromomethyl)benzoic acid S-alkylation of the resulting thioxypyridinecarbonitrile (no data provided), afforded claimed thienylpyridinecarbonitrile II. In methicillin-resistant Staphylococcus

aureus minimal inhibitory concentration (MIC) assays, 14-examples of compds. I exhibited MIC values ranging from 0.75->64 µg/mL, e.g., the MIC value of thienylpyridinecarbonitrile II was 4 µg/mL. Compds. I are claimed useful for the. Of note, compds. I are proposed to inhibit bacterial enoyl-ACP reductase (FabI), a NADH-dependent enoyl [acyl carrier protein] reductase enzyme in the fatty acid biosynthesis pathway.

IC ICM A61K031-44

ICS C07D213-84; A61P031-04

CC 27-16 (Heterocyclic Compounds (One Hetero Atom))

Section cross-reference(s): 1

ST thienylpyridinecarbonitrile prepn antibacterial agent fabI

inhibition; NADH dependent enoyl acyl carrier protein reductase

thienylpyridinecarbonitrile prepn; methicillin resistant staphylococcus

aureus thienylpyridinecarbonitrile prepn antibacterial agent

IT Dysentery

(bacillary, infection, treatment of; preparation of

thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase

(FabI) inhibitors.)

IT Infection

(bacterial; preparation of thienylpyridinecarbonitriles as

bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT Antibacterial agents

Human

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT 296797-06-3P 296798-15-7P 300844-13-7P

300844-14-8P 326282-01-5P 340808-61-9P

354545-70-2P 354555-67-2P 445266-27-3P

445383-75-5P 496018-68-9P 733052-04-5P

733052-05-6P 733052-06-7P 733052-07-8P

733052-08-9P 733052-09-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

IT 296797-06-3P 296798-15-7P 300844-13-7P

300844-14-8P 326282-01-5P 340808-61-9P

354545-70-2P 354555-67-2P 445266-27-3P

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733052-05-6P 733052-06-7P 733052-07-8P

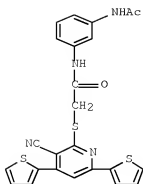
733052-08-9P 733052-09-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

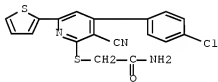
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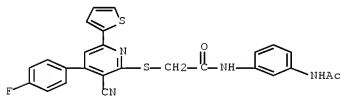
RN 296798-15-7 HCAPLUS

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(CA INDEX NAME)



RN 300844-13-7 HCAPLUS

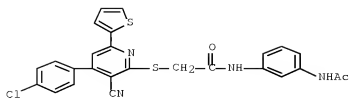
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RN 300844-14-8 HCAPLUS

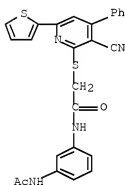
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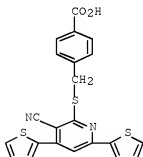
RN 328282-01-5 HCAPLUS

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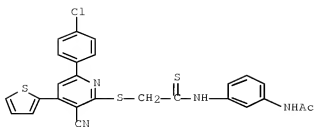
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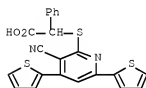
RN 354545-70-3 HCAPLUS

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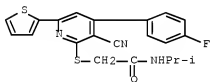
RN 354555-67-2 HCAPLUS

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(CA INDEX NAME)



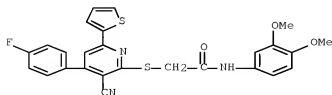
RN 445266-27-3 HCAPLUS

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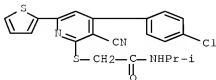
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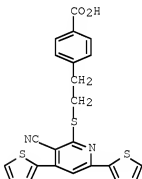
RN 496018-68-9 HCAPLUS

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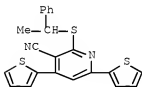
RN 733052-04-5 HCAPLUS

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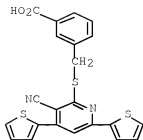
RN 733052-05-6 HCAPLUS

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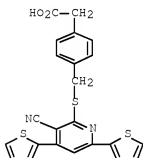


RN 733052-06-7 HCAPLUS

CN Benzoic acid, 3-[[[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]methyl]- (CA INDEX NAME)

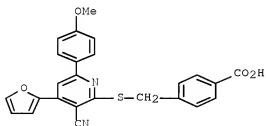


RN 733052-07-8 HCAPLUS

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(CA INDEX NAME)

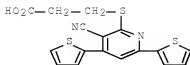
RN 733052-08-9 HCAPLUS

CN Benzoic acid, 4-[[[3-cyano-4-(2-furanyl)-6-(4-methoxyphenyl)-2-pyridinyl]thio]methyl]- (CA INDEX NAME)



RN 733052-09-0 HCAPLUS

CN Propanoic acid, 3-[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]- (CA INDEX  
NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L58 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS ON STN  
ACCESSION NUMBER: 2004:374624 HCAPLUS Full-text

DOCUMENT NUMBER: 141:239652

TITLE: Identification and characterization of inhibitors of bacterial enoyl-acyl carrier protein reductase

AUTHOR(S): Ling, Losee L.; Xian, Jun; Aii, Sved;  
Gang, Bojin; Fan, Jun; Mills, Debra M.;  
Arvanites, Anthony C.; Orqueira,  
Hernan; Ashwell, Mark A.; Carmel,  
Gilles; Xiang, Yibin; Moir, Donald

I.  
CORPORATE SOURCE: Genome Therapeutics Corporation, Waltham, MA, 02453,  
USA

SOURCE: Antimicrobial Agents and Chemotherapy (2004), 48(5),  
1541-1547  
CODEN: AMACQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 10 May 2004

AB Bacterial enoyl-acyl carrier protein reductase (ENR) catalyzes an essential step in fatty acid biosynthesis. ENR is an attractive target for narrow-spectrum antibacterial drug discovery because of its essential role in metabolism and its sequence conservation across many bacterial species. In addition, the bacterial ENR sequence and structural organization are distinctly different from those of mammalian fatty acid biosynthesis enzymes. High-throughput screening to identify inhibitors of *Escherichia coli* ENR yielded four structurally distinct classes of hits. Several members of one of these, the 2-(alkylthio)-4,6-diphenylpyridine-3- carbonitriles ("thiopyridines"), inhibited both purified ENR (50% inhibitory concentration [IC50] = 3-25 µM) and the growth of *Staphylococcus aureus* and *Bacillus subtilis* (MIC = 1-64 µg/mL). The effect on cell growth is due in part to inhibition of fatty acid biosynthesis as judged by inhibition of incorporation of [14C]acetate into fatty acids and by the increased sensitivity of cells that underexpress an ENR-encoding gene (4-8-fold MIC shift). Synthesis of a variety of compds. in this chemical series revealed a correlation between IC50 and MIC, and the results provided initial structure-activity relationships. Preliminary structure-activity relationships, potency on purified ENR, and activity on bacterial cells indicate that members of the thiopyridine chemical series are effective fatty acid biosynthesis inhibitors suitable for further antibacterial development.

CC 10-5 (Microbial, Algal, and Fungal Biochemistry)

IT Antibacterial agents  
Antibacterial agents

*Bacillus subtilis*

*Escherichia coli*

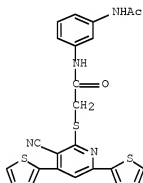
*Staphylococcus aureus*

(inhibitors of bacterial enoyl-acyl carrier protein reductase)

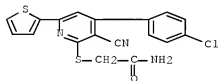
IT 37251-08-4, Enoyl-acyl carrier protein reductase 296797-06-3,  
 GTC 268733 296798-15-7, GTC 268724 300844-13-7, GTC  
 268726 340808-61-9, GTC 004061 354555-67-2, GTC 268963  
445266-27-3, GTC 268776 445383-75-5, GTC 268847  
496018-68-9, GTC 268925 733052-04-5, GTC 343129  
733052-06-7, GTC 343130 733052-07-6, GTC 330346  
733052-08-9, GTC 341772 750595-50-1, GTC 343131  
750595-51-8, GTC 096296  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors of bacterial enoyl-acyl carrier protein reductase)

IT 296797-06-3, GTC 268733 296798-15-7, GTC 268724  
300844-13-7, GTC 268726 340808-61-9, GTC 004061  
354555-67-2, GTC 268963 445266-27-3, GTC 268776  
445383-75-5, GTC 268847 496018-68-9, GTC 268925  
733052-04-5, GTC 343129 733052-06-7, GTC 343130  
733052-07-6, GTC 330346 733052-08-9, GTC 341772  
750595-50-1, GTC 343131 750595-51-8, GTC 096296  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors of bacterial enoyl-acyl carrier protein reductase)

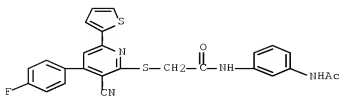
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RN 296798-15-7 HCAPLUS  
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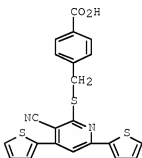


RN 300844-13-7 HCAPLUS  
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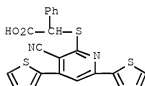
RN 340808-61-9 HCAPLUS

CN Benzoic acid, 4-[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]methyl]- (CA INDEX NAME)



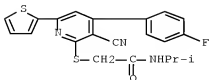
RN 354555-67-2 HCAPLUS

CN Benzeneacetic acid,  $\alpha$ -[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]- (CA INDEX NAME)

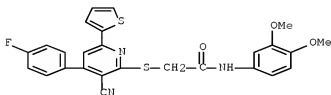


RN 445266-27-3 HCAPLUS

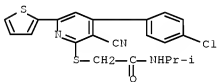
CN Acetamide, 2-[[3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinyl]thio]-N-(1-methylethyl)- (CA INDEX NAME)



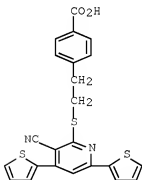
RN 445383-75-5 HCAPLUS

CN Acetamide, 2-[[3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinyl]thio]-  
N-(3,4-dimethoxyphenyl)- (CA INDEX NAME)

RN 496018-68-9 HCAPLUS

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N-(1-methylethyl)- (CA INDEX NAME)

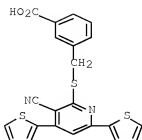
RN 733052-04-5 HCAPLUS

CN Benzoic acid, 4-[2-[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]ethyl]-  
(CA INDEX NAME)

RN 733052-06-7 HCAPLUS

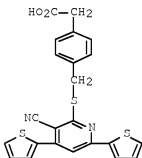
CN Benzoic acid, 3-[[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]methyl]-  
(CA INDEX NAME)





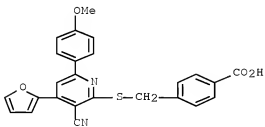
RN 733052-07-8 HCAPLUS

CN Benzenecetic acid, 4-[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]methyl]-  
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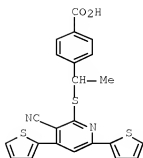
RN 733052-08-9 HCAPLUS

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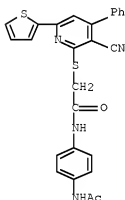


RN 750595-50-7 HCAPLUS

CN Benzoic acid, 4-[1-[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]ethyl]-  
(CA INDEX NAME)



RN 750595-51-8 HCAPLUS  
 CN Acetamide, N-[4-(acetamino)phenyl]-2-[[3-cyano-4-phenyl-6-(2-thienyl)-2-pyridinyl]thio]- (CA INDEX NAME)



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, USPATFULL' - CONTINUE? (Y)/N:y

L58 ANSWER 3 OF 3 USPATFULL on STN  
 ACCESSION NUMBER: 2007:30915 USPATFULL Full-text  
 TITLE: Antibacterial fab i inhibitors  
 INVENTOR(S): Moir, Donald T., Lexington, MA, UNITED STATES  
Xiang, Yibin, Acton, MA, UNITED STATES  
Arvanites, Anthony C., New Bedford, MA,  
 UNITED STATES  
Ali, Sved Masarrat, North Andover, MA, UNITED  
 STATES  
Geng, Bolin, Andover, MA, UNITED STATES  
Aebweil, Mark A., Carlisle, MA, UNITED STATES  
Orqueira, Hernan Antonio, Cambridge, MA,

## UNITED STATES

Eapian, Alan P., Kings Park, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070027190	A1	20070201
APPLICATION INFO.:	US 2004-542351	A1	20040116 (10)
	WO 2004-US1327		20040116
			20060807 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-441411P	20030117 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133, US	
NUMBER OF CLAIMS:	49	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	2 Drawing Page(s)	
LINE COUNT:	1013	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

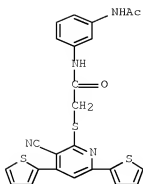
AB Disclosed herein are antibacterial compounds that inhibit fabI, a NADH-dependent enoyl [acyl carrier protein] reductase enzyme in the fatty acid biosynthesis pathway. The compounds are represented by structural formulas Ia and Ib: R1 and R2 are independently monocyclic aryl or heteroaryl groups, wherein the groups represented by R1 and R2 are optionally substituted with one or more acyclic substituents; R3 is --H or an optionally substituted C1-C8 aliphatic, C3-C8 cycloaliphatic, aryl, or heteroaryl group. X1 is a bond or a C1-C3 alkylene chain that is optionally substituted with a C1-C4 alkyl or an acidic group. X2 is an aryl, heteroaryl or C3-C8 cycloaliphatic ring, wherein the group represented by X2 is optionally substituted with triazole, tetrazole, and/or one or more acyclic substituents. ##STR1##

IT 296797-06-3P 296798-15-7P 308844-13-7P  
300844-14-3P 328282-01-5P 340808-61-9P  
354545-70-3P 354555-67-2P 445266-27-3P  
445383-75-5P 496018-68-9P 733052-04-5P  
733052-05-6P 733052-06-7P 733052-07-8P  
733052-08-9P 733052-09-0P

(preparation of thienylpyridinecarbonitriles as bacterial enoyl-ACP reductase (FabI) inhibitors.)

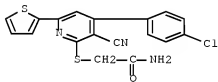
RN 296797-06-3 USPATFULL

CN Acetamide, N-[3-(acetylamino)phenyl]-2-[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]- (CA INDEX NAME)



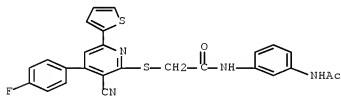
RN 296798-15-7 USPATFULL

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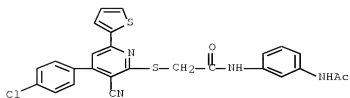
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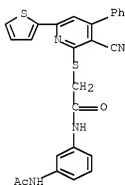
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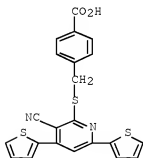
RN 328282-01-5 USPATFULL

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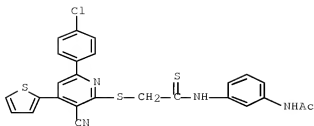
RN 340808-61-9 USPATFULL

CN Benzoic acid, 4-[[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]methyl]- (CA INDEX NAME)

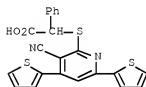


RN 354545-70-3 USPATFULL

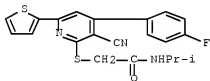
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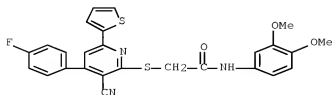
RN 354555-67-2 USPATFULL

CN Benzeneacetic acid,  $\alpha$ -[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]-  
(CA INDEX NAME)

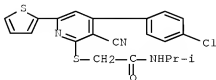
RN 445266-27-3 USPATFULL

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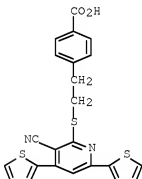
RN 445383-75-5 USPATFULL

CN Acetamide, 2-[[3-cyano-4-(4-fluorophenyl)-6-(2-thienyl)-2-pyridinyl]thio]-  
N-(3,4-dimethoxyphenyl)- (CA INDEX NAME)

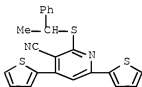
RN 496018-68-9 USPATFULL

CN Acetamide, 2-[[4-(4-chlorophenyl)-3-cyano-6-(2-thienyl)-2-pyridinyl]thio]-  
N-(1-methylethyl)- (CA INDEX NAME)

RN 733052-04-5 USPATFULL

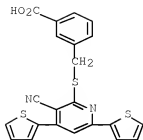
CN Benzoic acid, 4-[2-[(3-cyano-4,6-di-2-thienyl-2-pyridinyl)thio]ethyl]-  
(CA INDEX NAME)

RN 733052-05-6 USPATFULL

CN 3-Pyridinecarbonitrile, 2-[(1-phenylethyl)thio]-4,6-di-2-thienyl- (CA  
INDEX NAME)

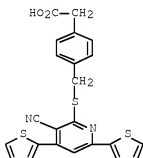
RN 733052-06-7 USPATFULL

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INDEX NAME)



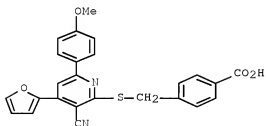
RN 733052-07-8 USPATFULL

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(CA INDEX NAME)



RN 733052-08-9 USPATFULL

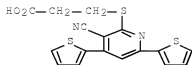
CN Benzoic acid, 4-[[[3-cyano-4-(2-furanyl)-6-(4-methoxyphenyl)-2-pyridinyl]thio]methyl]- (CA INDEX NAME)



RN 733052-09-0 USPATFULL

CN Propanoic acid, 3-[[[3-cyano-4,6-di-2-thienyl-2-pyridinyl]thio]methyl]- (CA INDEX NAME)





=> file stnguide

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USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT  
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LAST RELOADED: Sep 12, 2008 (20080912/UP).

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(FILE 'HOME' ENTERED AT 16:09:04 ON 18 SEP 2008)

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D QUE L2

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D QUE STAT

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 L10 8 SEA ABB=ON PLU=ON L4 AND L9  
 SAVE TEMP L10 ZAR351REGCLM/A  
 L11 14 SEA ABB=ON PLU=ON L4 NOT L9  
 D SCAN

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 STR L7

FILE 'REGISTRY' ENTERED AT 16:31:17 ON 18 SEP 2008  
 L13 50 SEA SSS SAM L12

FILE 'STNGUIDE' ENTERED AT 16:31:25 ON 18 SEP 2008  
 D QUE STAT

FILE 'REGISTRY' ENTERED AT 16:35:04 ON 18 SEP 2008  
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 L15 17 SEA ABB=ON PLU=ON L4 AND L14  
 SAVE TEMP L15 ZAR351REGCLM/A

FILE 'STNGUIDE' ENTERED AT 16:36:11 ON 18 SEP 2008

FILE 'REGISTRY' ENTERED AT 16:36:52 ON 18 SEP 2008  
 L16 5 SEA ABB=ON PLU=ON L4 NOT L15  
 D SCAN

FILE 'STNGUIDE' ENTERED AT 16:37:13 ON 18 SEP 2008

FILE 'ZCAPLUS' ENTERED AT 16:37:40 ON 18 SEP 2008

L17 QUE ABB=ON PLU=ON MOIR, D7/AU  
 L18 QUE ABB=ON PLU=ON XIANG, Y7/AU  
 L19 QUE ABB=ON PLU=ON ARVANITES, A7/AU  
 L20 QUE ABB=ON PLU=ON ARVANITES, T7/AU  
 L21 QUE ABB=ON PLU=ON ALI, S7/AU  
 L22 QUE ABB=ON PLU=ON GENG, B7/AU  
 L23 QUE ABB=ON PLU=ON ASHWELL, M7/AU  
 L24 QUE ABB=ON PLU=ON ORGUEIRA, H7/AU  
 L25 QUE ABB=ON PLU=ON KAPLAN, A7/AU  
 L26 QUE ABB=ON PLU=ON (OSCIENT OR ARQULE)/CS,SO,PA  
 L27 QUE ABB=ON PLU=ON AY<2004 OR PY<2004 OR PRY<2004 OR MY<2004  
 OR REVIEW/DT  
 L28 QUE ABB=ON PLU=ON INFECTION+PFT,OLD,NEW,NT/CT(L)BACTER?  
 L29 QUE ABB=ON PLU=ON "ANTIBACTERIAL AGENTS"+PFT,OLD,NEW/CT  
 L30 QUE ABB=ON PLU=ON ANTIINFECT? OR (ANTI(1W)INFECT?)  
 L31 QUE ABB=ON PLU=ON ANTIBACTER? OR ANTIBIOT? OR ANTIMICROB? OR  
 (ANTI(1W)(BACTER? OR BIOT? OR MICROB?))  
 L32 QUE ABB=ON PLU=ON (A61P0031-04 OR A61P0031-06 OR A61P0031-08)  
 /IPC

FILE 'HCAPLUS' ENTERED AT 16:45:16 ON 18 SEP 2008

L33 67 SEA ABB=ON PLU=ON L14  
 L34 5 SEA ABB=ON PLU=ON L15  
 L35 67 SEA ABB=ON PLU=ON (L33 OR L34)

L36 8 SEA ABB=ON PLU=ON L35 AND (L28 OR L29 OR L30 OR L31 OR L32)  
 L37 67 SEA ABB=ON PLU=ON (L33 OR L34 OR L35 OR L36)  
 L38 2 SEA ABB=ON PLU=ON L37 AND (L17 OR L18 OR L19 OR L20 OR L21  
 OR L22 OR L23 OR L24 OR L25 OR L26)  
 SAVE TEMP L38 ZAR351HCAINV/A  
 L39 65 SEA ABB=ON PLU=ON L37 NOT L38  
 D SCAN TI HIT  
 L40 49 SEA ABB=ON PLU=ON L39 AND L27  
 SAVE TEMP L40 ZAR351HCAB/A  
 L41 1 SEA ABB=ON PLU=ON L38 AND L1

FILE 'STNGUIDE' ENTERED AT 16:49:34 ON 18 SEP 2008

FILE 'REGISTRY' ENTERED AT 16:49:53 ON 18 SEP 2008

L42 27 SEA ABB=ON PLU=ON L14 AND (USPATFULL OR USPAT2 OR USPATOLD)/L  
 C  
 L\*\*\* DEL 0 S L42 AND L17-L26  
 D QUE

FILE 'USPATFULL, USPATOLD, USPAT2' ENTERED AT 16:51:16 ON 18 SEP 2008

L43 6 SEA ABB=ON PLU=ON L42  
 L44 1 SEA ABB=ON PLU=ON L43 AND (L17 OR L18 OR L19 OR L20 OR L21  
 OR L22 OR L23 OR L24 OR L25 OR L26)  
 L45 5 SEA ABB=ON PLU=ON L43 NOT L44  
 L46 3 SEA ABB=ON PLU=ON L45 AND L27

FILE 'REGISTRY' ENTERED AT 16:52:05 ON 18 SEP 2008

L47 0 SEA ABB=ON PLU=ON L14 AND (MEDLINE OR BIOSIS OR EMBASE OR  
 CABA OR BIOTECHNO OR DRUGU OR VETU)/LC  
 L48 ANALYZE PLU=ON L14 1- LC : 9 TERMS  
 D 1-

FILE 'WPIX' ENTERED AT 16:59:02 ON 18 SEP 2008

D QUE L14  
 L49 4 SEA SSS SAM L12  
 L50 26 SEA SSS FUL L12  
 SAVE TEMP L50 ZAR351WPIS/A  
 SELECT L50 1- SDCN  
 L51 7 SEA ABB=ON PLU=ON (RABM4F/DCN OR RAF3OD/DCN OR RAF3OJ/DCN OR  
 RAF3ON/DCN OR RAF3OO/DCN OR RAF3OQ/DCN OR RAF3OS/DCN OR  
 RAF3OT/DCN OR RAF3OY/DCN OR RAF3OZ/DCN OR RAF3PA/DCN OR  
 RAF3PB/DCN OR RAF3P4/DCN OR RAF3P5/DCN OR RAF3P6/DCN OR  
 RAF3P9/DCN OR RA11QS/DCN OR RAOHFY/DCN OR RAOHFZ/DCN OR  
 RAOHG0/DCN OR RAOHG1/DCN OR RAOHG2/DCN OR RAOHG3/DCN OR  
 RAOHG4/DCN OR RAR23T/DCN OR RAVPWX/DCN) OR L50/DCR  
 L52 1 SEA ABB=ON PLU=ON L51 AND (L17 OR L18 OR L19 OR L20 OR L21  
 OR L22 OR L23 OR L24 OR L25 OR L26)  
 L53 1 SEA ABB=ON PLU=ON L52 AND L2  
 L54 1 SEA ABB=ON PLU=ON (L52 OR L53)  
 L55 6 SEA ABB=ON PLU=ON L51 NOT L54  
 L56 2 SEA ABB=ON PLU=ON L55 AND L27  
 D TRI 1-2

FILE 'STNGUIDE' ENTERED AT 17:01:38 ON 18 SEP 2008

D QUE STAT L14  
 D QUE NOS L40  
 D QUE NOS L46  
 D QUE L47  
 D QUE STAT L50  
 D QUE L56

L57 FILE 'HCAPLUS, USPATFULL, WPIX' ENTERED AT 17:03:28 ON 18 SEP 2008  
 51 DUP REM L40 L46 L56 (3 DUPLICATES REMOVED)  
 ANSWERS '1-49' FROM FILE HCAPLUS  
 ANSWERS '50-51' FROM FILE USPATFULL  
 SAVE TEMP L57 ZAR351MAIN/A

FILE 'STNGUIDE' ENTERED AT 17:03:50 ON 18 SEP 2008

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:04:22 ON 18 SEP 2008  
 D IBIB ED ABS HITIND HITSTR 1-25

FILE 'STNGUIDE' ENTERED AT 17:04:38 ON 18 SEP 2008

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:06:43 ON 18 SEP 2008  
 D IBIB ED ABS HITIND HITSTR 26-49

FILE 'STNGUIDE' ENTERED AT 17:06:51 ON 18 SEP 2008

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:08:58 ON 18 SEP 2008  
 D IBIB AB HITSTR 50-51

FILE 'STNGUIDE' ENTERED AT 17:09:05 ON 18 SEP 2008  
 D QUE NOS L38  
 D QUE NOS L44  
 D QUE L47  
 D QUE L54

L58 FILE 'HCAPLUS, USPATFULL, WPIX' ENTERED AT 17:10:37 ON 18 SEP 2008  
 3 DUP REM L38 L44 L54 (1 DUPLICATE REMOVED)  
 ANSWERS '1-2' FROM FILE HCAPLUS  
 ANSWER '3' FROM FILE USPATFULL  
 SAVE TEMP L58 ZAR351INV/A

FILE 'STNGUIDE' ENTERED AT 17:10:58 ON 18 SEP 2008

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:11:24 ON 18 SEP 2008  
 D IBIB ED ABS HITIND HITSTR 1-2

FILE 'STNGUIDE' ENTERED AT 17:11:31 ON 18 SEP 2008

FILE 'HCAPLUS, USPATFULL' ENTERED AT 17:12:07 ON 18 SEP 2008  
 D IBIB AB HITSTR 3

FILE 'STNGUIDE' ENTERED AT 17:12:08 ON 18 SEP 2008

FILE 'STNGUIDE' ENTERED AT 17:12:10 ON 18 SEP 2008

FILE HOME

FILE STNGUIDE  
 FILE CONTAINS CURRENT INFORMATION.  
 LAST RELOADED: Sep 12, 2008 (20080912/UP).

FILE ZCAPLUS

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FILE LAST UPDATED: 17 Sep 2008 (20080917/ED)

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MOST RECENT UPDATE: 200858 <200858/DW>

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>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

#### FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 16 SEP 2008 HIGHEST RN 1049663-83-3  
 DICTIONARY FILE UPDATES: 16 SEP 2008 HIGHEST RN 1049663-83-3

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#### FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 18 Sep 2008 (20080918/PD)  
 FILE LAST UPDATED: 18 Sep 2008 (20080918/ED)  
 HIGHEST GRANTED PATENT NUMBER: US7426752  
 HIGHEST APPLICATION PUBLICATION NUMBER: US20080229468  
 CA INDEXING IS CURRENT THROUGH 18 Sep 2008 (20080918/UPCA)  
 ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 18 Sep 2008 (20080918/PD)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2008  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2008

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#### FILE USPATOLD

FILE COVERS U.S. PATENTS 1790-1975  
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FILE USPAT2

FILE COVERS 2001 TO PUBLICATION DATE: 18 Sep 2008 (20080918/PD)  
FILE LAST UPDATED: 18 Sep 2008 (20080918/ED)  
HIGHEST GRANTED PATENT NUMBER: US20080206279  
HIGHEST APPLICATION PUBLICATION NUMBER: US20080228403  
CA INDEXING IS CURRENT THROUGH 18 Sep 2008 (20080918/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 18 Sep 2008 (20080918/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2008  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2008

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